

FCC/IC RF Test Report

APPLICANT : Sony Mobile Communications AB
EQUIPMENT : Smart phone
BRAND NAME : SONY
MODEL NAME : D2306
TYPE NAME : PM-0723-BV
FCC ID : PY7PM-0723
IC : 4170B-PM0723
STANDARD : 47 CFR Part 2, 24(E), 27
IC RSS-130 issue 1
IC RSS-133 issue 6
IC RSS-139 issue 2
IC RSS-199 issue 1

CLASSIFICATION : PCS Licensed Transmitter Held to Ear (PCE)

The product was received on Nov. 15, 2013 and testing was completed on Mar. 24, 2014. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI / TIA / EIA-603-C-2004 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.



Reviewed by: Joseph Lin / Supervisor



Approved by: Jones Tsai / Manager



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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG3N1535B	Rev. 01	Initial issue of report	Jan. 24, 2014
FG3N1535B	Rev. 02	Adding description of LTE Rel. Version in section 1.3	Feb. 25, 2014
FG3N1535B	Rev. 03	Adding LTE band 2 information.	Mar. 26, 2014



SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	§2.1046	RSS-Gen(4.8) RSS-130 (4.4) RSS-133 (6.4) RSS-139 (6.4) RSS-199 (4.4)	Conducted Output Power	Reporting Only	PASS	-
3.2	27.50(d)(5)	RSS-130 (4.4) RSS-133 (6.4) RSS-139 (6.4)	Peak-to-Average Ratio	<13 dB	PASS	-
3.3	§27.50(c)(10)	N/A	Effective Radiated Power (Band 17)	ERP < 3 Watts	PASS	-
	N/A	RSS-130 (4.4)	Equivalent Isotropic Radiated Power (Band 17)	EIRP < 5 Watts		
	§24.232(c) §27.50(h)(2)	SRSP-510(5.1.2) RSS-133 (6.4) RSS-199 (4.4)	Equivalent Isotropic Radiated Power (Band 2) (Band 7)	EIRP < 2Watt		
	§27.50(d)(4)	RSS-139 (6.4) SRSP-513(5.1.2)	Equivalent Isotropic Radiated Power (Band 4)	EIRP < 1Watt	PASS	
3.4	§2.1049 §24.238(b) §27.53(h)(3)	RSS-GEN (4.6.1) RSS-133 (3.1) RSS-139 (3.1) RSS-199 (4.2)	Occupied Bandwidth	Reporting Only	PASS	-
3.5	§2.1051 §24.238(a) §27.53 (f) §27.53(g) §27.53(l)(4)	RSS-GEN(4.9) RSS-130(4.6) RSS-133 (6.5.1) RSS-139 (6.5) RSS-199 (4.5)	Conducted Band Edge Measurement (Band 2) (Band 4) (Band 17) (Band 7)	< 43+10log10(P[Watts])	PASS	-



Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.6	§2.1051 §24.238(a) §27.53(f) (g)	RSS-GEN(4.9) RSS-130 (4.6) RSS-133 (6.5.1) RSS-139 (6.5)	Conducted Spurious Emission (Band 2) (Band 4) (Band 17)	$< 43+10\log_{10}(P[\text{Watts}])$	PASS	-
	§2.1051 §27.53(l)(4)	RSS-GEN(4.9) RSS-199 (4.5)	Conducted Spurious Emission (Band 7)	$< 55+10\log_{10}(P[\text{Watts}])$		
3.7	§2.1053 §24.238(a) §27.53(f) (g)	RSS-GEN(4.9) RSS-130 (4.6) RSS-133 (6.5.1) RSS-139 (6.5)	Radiated Spurious Emission (Band 2) (Band 4) (Band 17)	$< 43+10\log_{10}(P[\text{Watts}])$	PASS	Under limit 3.51 dB at 7545.000 MHz
	§2.1053 §27.53(l)(4)	RSS-GEN(4.9) RSS-199 (4.5)	Radiated Spurious Emission (Band 7)	$< 55+10\log_{10}(P[\text{Watts}])$		
3.8	§2.1055 §24.235 §27.54	RSS-GEN(4.7) RSS-130 (4.3) RSS-133(6.3) RSS-139 (6.3) RSS-199 (4.3)	Frequency Stability Temperature & Voltage	$< 2.5 \text{ ppm}$	PASS	-

1 General Description

1.1 Applicant

Sony Mobile Communications AB
Nya Vattentorget, 22188 Lund, Sweden

1.2 Manufacturer

Compal Communications, INC.
No. 385, Yangguang Street, Neihu, Taipei 11491, Taiwan

1.3 Feature of Equipment Under Test

The Equipment Under Test (hereafter called: EUT) is smart phone supporting, GSM / WCDMA / LTE / Wi-Fi 2.4GHz 802.11b/g/n, Wi-Fi 5GHz 802.11a/n, Bluetooth with FM Receiver, GPS, and NFC features, and below is details of information.

Product Feature	
Equipment	Smart phone
Brand Name	SONY
Model Name	D2306
Type name	PM-0723-BV
FCC ID	PY7PM-0723
IC	4170B-PM0723
GSM Operating Band(s)	GSM 850/900/1800/1900MHz
GPRS / EGPRS Multi Slot Class	GPRS Class 33 , EGPRS Class 33
WCDMA Operating Band(s)	FDD Band I / II / IV / V
WCDMA Rel. Version	Rel. 8
LTE Operating Band(s)	FDD Band II / IV / VII / XVII
LTE Rel. Version	Rel. 9
Wi-Fi Specification	802.11b/g/n (HT20) 802.11a/n (HT20/HT40)
Bluetooth Version	v3.0 + EDR / v4.0 - LE
NFC Specification	ISO14443A / ISO14443B / Felica
Power Supply	Battery / AC Adapter / Car Charger

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.4 Product Specification of Equipment Under Test

Product Specification subjective to this standard	
Tx Frequency	LTE Band 2 : 1850.7 MHz ~ 1909.3 MHz LTE Band 4 : 1710.7 MHz ~ 1754.3 MHz LTE Band 17 : 706.5 MHz ~ 713.5 MHz LTE Band 7 : 2506.5 MHz ~ 2534.5 MHz and 2556 MHz ~ 2567.5 MHz
Rx Frequency	LTE Band 2 : 1930.7 MHz ~ 1989.3 MHz LTE Band 4 : 2110.7 MHz ~ 2154.3 MHz LTE Band 17 : 736.5 MHz ~ 743.5 MHz LTE Band 7 : 2626.5MHz ~ 2654.5 MHz and 2676 MHz ~ 2687.5 MHz
Bandwidth	1.4MHz / 3MHz / 5MHz/ 10MHz / 15MHz / 20MHz (Band 2) 1.4MHz / 3MHz / 5MHz/ 10MHz / 15MHz / 20MHz (Band 4) 5MHz/ 10MHz / 15MHz / 20MHz (Band 7) 5MHz / 10MHz (Band 17)
Maximum Output Power to Antenna	<LTE Band 2> 1.4MHz: 23.29 dBm / 0.2133 W 3MHz: 23.16 dBm / 0.2070 W 5MHz: 23.16 dBm / 0.2070 W 10MHz: 23.34 dBm / 0.2158 W 15MHz: 23.86 dBm / 0.2432 W 20MHz: 23.85 dBm / 0.2427 W <LTE Band 4> 1.4MHz: 23.76 dBm / 0.2377 W 3MHz: 23.67 dBm / 0.2328 W 5MHz: 23.70 dBm / 0.2344 W 10MHz: 23.68 dBm / 0.2333 W 15MHz: 23.72 dBm / 0.2355 W 20MHz: 23.86 dBm / 0.2432 W <LTE Band 7> 5MHz: 23.98 dBm / 0.2500 W 10MHz: 23.96 dBm / 0.2489 W 15MHz: 23.98 dBm / 0.2500 W 20MHz: 23.99 dBm / 0.2506 W <LTE Band 17> 5MHz: 23.54 dBm / 0.2259 W 10MHz: 23.60 dBm / 0.2291 W
Antenna Type	PIFA Antenna
Type of Modulation	QPSK / 16QAM
EUT Serial Number	IMEI : 004402451650745 S/N : 468191316BB
H/W	A
S/W	18.0.C.0.30
EUT Stage	Production Unit

Accessory List	
AC Adapter	Model No. : EP800
	Type No. : CAA-0002016-US B
Battery	Model No. : LIS1502ERPC
	Type No. : LIS1502ERPC
Earphone	Model No. : MH410c
	Type No. : AG-1100
USB Cable	Model No. : AHAB EC450
	Part No. : 1242-6715.4

Note:

1. Above EUT list and accessory list used are electrically identical per declared by manufacturer.
2. Above the accessories list are used to exercise the EUT during test, and the serial number of each type of accessories is listed in each section of this report.
3. For other wireless features of this EUT, test report will be issued separately.

1.5 Modification of EUT

No modifications are made to the EUT during all test items.

1.6 Emission Designator

FCC Rule	System	Type of Modulation	BW	Emission Designator	Frequency Tolerance (ppm)	Maximum ERP	Maximum EIRP
Part 24	LTE Band 2	QPSK	1.4 MHz	1M12G7D	-	-	0.2438 W
Part 24	LTE Band 2	16QAM	1.4 MHz	1M12D7W	-	-	0.2265 W
Part 24	LTE Band 2	QPSK	3 MHz	2M73G7D	-	-	0.2410 W
Part 24	LTE Band 2	16QAM	3 MHz	2M74D7W	-	-	0.2018 W
Part 24	LTE Band 2	QPSK	5 MHz	4M52G7D	-	-	0.2254 W
Part 24	LTE Band 2	16QAM	5 MHz	4M51D7W	-	-	0.1837 W
Part 24	LTE Band 2	QPSK	10 MHz	9M13G7D	0.0004 ppm	-	0.2138 W
Part 24	LTE Band 2	16QAM	10 MHz	9M07D7W	-	-	0.1778 W
Part 24	LTE Band 2	QPSK	15 MHz	13M5G7D	-	-	0.2415 W
Part 24	LTE Band 2	16QAM	15 MHz	13M5D7W	-	-	0.2046 W
Part 24	LTE Band 2	QPSK	20 MHz	18M3G7D	-	-	0.2234 W
Part 24	LTE Band 2	16QAM	20 MHz	18M5D7W	-	-	0.1841 W
Part 27	LTE Band 4	QPSK	1.4 MHz	1M11G7D	-	-	0.1611 W
Part 27	LTE Band 4	16QAM	1.4 MHz	1M11D7W	-	-	0.1419 W
Part 27	LTE Band 4	QPSK	3 MHz	2M74G7D	-	-	0.1959 W
Part 27	LTE Band 4	16QAM	3 MHz	2M73D7W	-	-	0.1259 W
Part 27	LTE Band 4	QPSK	5MHz	4M51G7D	-	-	0.1377 W
Part 27	LTE Band 4	16QAM	5MHz	4M51D7W	-	-	0.1197 W
Part 27	LTE Band 4	QPSK	10MHz	9M12G7D	0.04 ppm	-	0.1963 W
Part 27	LTE Band 4	16QAM	10MHz	9M04D7W	-	-	0.1690 W
Part 27	LTE Band 4	QPSK	15MHz	13M5G7D	-	-	0.1742 W
Part 27	LTE Band 4	16QAM	15MHz	13M5D7W	-	-	0.1585 W
Part 27	LTE Band 4	QPSK	20MHz	18M5G7D	-	-	0.1626 W
Part 27	LTE Band 4	16QAM	20MHz	18M5D7W	-	-	0.1303 W



FCC Rule	System	Type of Modulation	BW	Emission Designator	Frequency Tolerance (ppm)	Maximum ERP	Maximum EIRP
Part 27	LTE Band 7	QPSK	5MHz	4M51G7D	-	-	0.5433 W
Part 27	LTE Band 7	16QAM	5MHz	4M50D7W	-	-	0.4266 W
Part 27	LTE Band 7	QPSK	10MHz	9M08G7D	0.06 ppm	-	0.5943 W
Part 27	LTE Band 7	16QAM	10MHz	9M04D7W	-	-	0.4111 W
Part 27	LTE Band 7	QPSK	15MHz	13M5G7D	-	-	0.4305 W
Part 27	LTE Band 7	16QAM	15MHz	13M5D7W	-	-	0.3499 W
Part 27	LTE Band 7	QPSK	20MHz	18M5G7D	-	-	0.3936 W
Part 27	LTE Band 7	16QAM	20MHz	18M5D7W	-	-	0.3289 W
Part 27	LTE Band 17	QPSK	5MHz	4M51G7D	-	0.0413 W	0.0678 W
Part 27	LTE Band 17	16QAM	5MHz	4M51D7W	-	0.0341 W	0.0560 W
Part 27	LTE Band 17	QPSK	10MHz	9M12G7D	0.04 ppm	0.0473 W	0.6776 W
Part 27	LTE Band 17	16QAM	10MHz	9M06D7W	-	0.0391 W	0.0741 W

1.7 Testing Site

Test Site	SPORTON INTERNATIONAL INC.		
Test Site Location	No. 52, Hwa Ya 1 st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL: +886-3-327-3456 FAX: +886-3-328-4978		
Test Site No.	Sporton Site No.		FCC/IC Registration No.
	TH02-HY	03CH07-HY	722060/4086B-1

1.8 Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ 47 CFR Part 2, 27
- ♦ ANSI / TIA / EIA-603-C-2004
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v02r01
- ♦ IC RSS-130 Issue1
- ♦ IC RSS-133 Issue 6
- ♦ IC RSS-139 Issue 2
- ♦ IC RSS-199 Issue 1
- ♦ IC RSS-Gen Issue 3
- ♦ NOTICE 2012-DRS0126

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. Per the section 2.2.3 of Notice of 2012-DRS0126, " Receivers Excluded from Industry Canada Requirements", only radiocommunication receivers operating in stand-alone mode within the band 30-960 MHz and scanner receivers are subject to Industry Canada requirements.

2 Test Configuration of Equipment Under Test

2.1 Test Mode

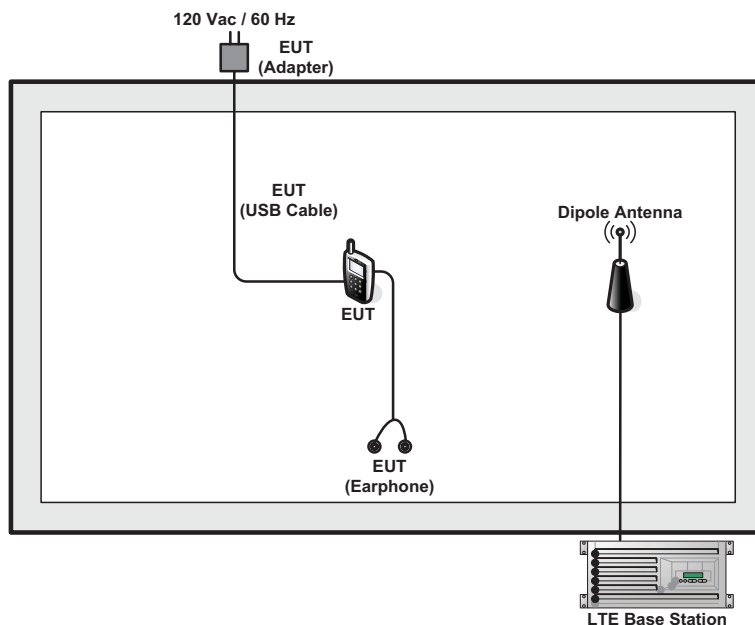
During all testing, EUT is in link mode with base station emulator at maximum power level. The spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range, and EUT was rotated on three test planes to find out the worst emission.

Frequency range investigated for radiated emission: 30MHz to 10th harmonic.

Test Modes			
Band		Radiated TCs	Conducted TCs
LTE Band 4	BW 1.4MHz	■ LTE (RB Size 1) Link	■ LTE (RB Size 1) Link ■ LTE (RB Size 3) Link ■ LTE (RB Size 6) Link
	BW 3MHz	■ LTE (RB Size 1) Link	■ LTE (RB Size 1) Link ■ LTE (RB Size 8) Link ■ LTE (RB Size 15) Link
	BW 5MHz	■ LTE (RB Size 1) Link	■ LTE (RB Size 1) Link ■ LTE (RB Size 12) Link ■ LTE (RB Size 25) Link
	BW 10MHz	■ LTE (RB Size 1) Link	■ LTE (RB Size 1) Link ■ LTE (RB Size 25) Link ■ LTE (RB Size 50) Link
	BW 15MHz	■ LTE (RB Size 1) Link	■ LTE (RB Size 1) Link ■ LTE (RB Size 36) Link ■ LTE (RB Size 75) Link
	BW 20MHz	■ LTE (RB Size 1) Link	■ LTE (RB Size 1) Link ■ LTE (RB Size 50) Link ■ LTE (RB Size 100) Link

Test Modes			
Band		Radiated TCs	Conducted TCs
LTE Band 2	BW 1.4MHz	■ LTE (RB Size 1) Link	■ LTE (RB Size 1) Link ■ LTE (RB Size 3) Link ■ LTE (RB Size 6) Link
	BW 3MHz	■ LTE (RB Size 1) Link	■ LTE (RB Size 1) Link ■ LTE (RB Size 8) Link ■ LTE (RB Size 15) Link
	BW 5MHz	■ LTE (RB Size 1) Link	■ LTE (RB Size 1) Link ■ LTE (RB Size 12) Link ■ LTE (RB Size 25) Link
	BW 10MHz	■ LTE (RB Size 1) Link	■ LTE (RB Size 1) Link ■ LTE (RB Size 25) Link ■ LTE (RB Size 50) Link
	BW 15MHz	■ LTE (RB Size 1) Link	■ LTE (RB Size 1) Link ■ LTE (RB Size 36) Link ■ LTE (RB Size 75) Link
	BW 20MHz	■ LTE (RB Size 50) Link	■ LTE (RB Size 1) Link ■ LTE (RB Size 50) Link ■ LTE (RB Size 100) Link
LTE Band 7	BW 5MHz	■ LTE (RB Size 1) Link	■ LTE (RB Size 1) Link ■ LTE (RB Size 12) Link ■ LTE (RB Size 25) Link
	BW 10MHz	■ LTE (RB Size 1) Link	■ LTE (RB Size 1) Link ■ LTE (RB Size 25) Link ■ LTE (RB Size 50) Link
	BW 15MHz	■ LTE (RB Size 1) Link	■ LTE (RB Size 1) Link ■ LTE (RB Size 36) Link ■ LTE (RB Size 75) Link
	BW 20MHz	■ LTE (RB Size 1) Link	■ LTE (RB Size 1) Link ■ LTE (RB Size 50) Link ■ LTE (RB Size 100) Link
LTE Band 17	BW 5MHz	■ LTE (RB Size 1) Link	■ LTE (RB Size 1) Link ■ LTE (RB Size 12) Link ■ LTE (RB Size 25) Link
	BW 10MHz	■ LTE (RB Size 1) Link	■ LTE (RB Size 1) Link ■ LTE (RB Size 25) Link ■ LTE (RB Size 50) Link

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	LTE Base Station	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m

2.4 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 4.2 dB and 10dB attenuator.

Example :

$$\begin{aligned}
 \text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)}. \\
 &= 4.2 + 10 = 14.2 \text{ (dB)}
 \end{aligned}$$

3 Test Result

3.1 Conducted Output Power Measurement

3.1.1 Description of the Conducted Output Power Measurement

A base station simulator was used to establish communication with the EUT. Its parameters were set to transmit the maximum power on the EUT. The measured power in the radio frequency on the transmitter output terminals shall be reported.

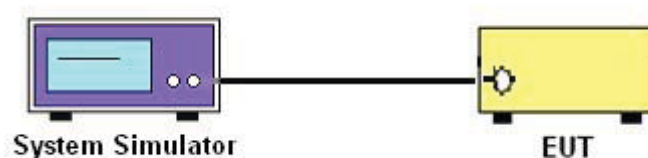
3.1.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.1.3 Test Procedures

1. The transmitter output port was connected to base station.
2. Set EUT at maximum power through base station.
3. Select lowest, middle, and highest channels for each band and different modulation.

3.1.4 Test Setup



3.1.5 Test Result of Conducted Output Power

<LTE Band 2 Conducted Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				18700	18900	19100
Frequency (MHz)				1860.0	1880.0	1900.0
20	QPSK	1	0	21.74	23.31	23.07
20	QPSK	1	49	23.15	23.14	22.89
20	QPSK	1	99	23.07	23.24	22.84
20	QPSK	50	0	22.92	23.25	23.11
20	QPSK	50	24	23.42	23.25	22.93
20	QPSK	50	49	23.24	23.23	22.92
20	QPSK	100	0	23.13	23.26	23.02
20	16QAM	1	0	20.81	22.91	22.73
20	16QAM	1	49	23.14	22.85	22.38
20	16QAM	1	99	22.83	22.69	22.22
20	16QAM	50	0	21.95	23.15	23.08
20	16QAM	50	24	23.04	23.27	22.88
20	16QAM	50	49	23.85	23.23	22.97
20	16QAM	100	0	23.07	23.14	23.02
Channel				18675	18900	19125
Frequency (MHz)				1857.5	1880	1902.5
15	QPSK	1	0	22.22	23.22	23.08
15	QPSK	1	37	23.13	23.20	22.90
15	QPSK	1	74	23.15	23.23	22.86
15	QPSK	36	0	22.80	23.25	22.91
15	QPSK	36	18	23.11	23.19	22.83
15	QPSK	36	37	23.20	23.19	22.83
15	QPSK	75	0	23.18	23.28	22.81
15	16QAM	1	0	21.45	23.01	23.19
15	16QAM	1	37	22.60	23.13	22.96
15	16QAM	1	74	23.86	22.98	23.00
15	16QAM	36	0	21.86	23.10	22.89
15	16QAM	36	18	22.49	23.20	22.79
15	16QAM	36	37	23.11	23.15	22.90
15	16QAM	75	0	22.61	23.27	22.95



BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				18650	18900	19150
Frequency (MHz)				1855	1880	1905
10	QPSK	1	0	22.31	23.21	22.91
10	QPSK	1	24	22.98	23.20	22.87
10	QPSK	1	49	23.12	23.15	22.93
10	QPSK	25	0	22.65	23.22	22.76
10	QPSK	25	12	22.96	23.18	22.81
10	QPSK	25	24	23.11	23.23	22.78
10	QPSK	50	0	22.92	23.33	22.91
10	16QAM	1	0	21.78	23.34	23.04
10	16QAM	1	24	22.49	23.33	22.88
10	16QAM	1	49	22.96	23.27	22.77
10	16QAM	25	0	21.71	23.14	22.74
10	16QAM	25	12	22.03	23.20	22.78
10	16QAM	25	24	22.23	23.23	22.76
10	16QAM	50	0	22.03	23.21	22.90
Channel				18625	18900	19175
Frequency (MHz)				1852.5	1880	1907.5
5	QPSK	1	0	22.45	23.08	22.84
5	QPSK	1	12	22.78	23.16	22.70
5	QPSK	1	24	22.66	23.08	22.79
5	QPSK	12	0	21.66	21.89	21.59
5	QPSK	12	6	21.65	21.90	21.49
5	QPSK	12	11	21.75	21.95	21.49
5	QPSK	25	0	21.66	21.92	21.57
5	16QAM	1	0	21.52	22.71	22.41
5	16QAM	1	12	21.94	22.78	22.49
5	16QAM	1	24	21.79	22.65	22.40
5	16QAM	12	0	21.72	21.92	21.63
5	16QAM	12	6	21.88	21.96	21.64
5	16QAM	12	11	21.84	21.99	21.63
5	16QAM	25	0	21.77	21.93	21.58



BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				18615	18900	19185
Frequency (MHz)				1851.5	1880	1908.5
3	QPSK	1	0	22.78	23.15	22.81
3	QPSK	1	7	22.81	23.16	22.72
3	QPSK	1	14	22.78	23.14	22.73
3	QPSK	8	0	21.57	21.82	21.38
3	QPSK	8	4	21.55	21.79	21.45
3	QPSK	8	7	21.53	21.77	21.41
3	QPSK	15	0	21.57	21.75	21.44
3	16QAM	1	0	21.87	22.98	22.56
3	16QAM	1	7	22.03	23.11	22.44
3	16QAM	1	14	22.03	23.01	22.61
3	16QAM	8	0	21.86	21.91	21.48
3	16QAM	8	4	21.93	21.85	21.49
3	16QAM	8	7	21.94	21.91	21.39
3	16QAM	15	0	21.81	21.76	21.44
Channel				18607	18900	19193
Frequency (MHz)				1850.7	1880	1909.3
1.4	QPSK	1	0	22.45	23.11	22.65
1.4	QPSK	1	2	22.49	23.23	22.76
1.4	QPSK	1	5	22.45	23.29	22.87
1.4	QPSK	3	0	22.38	23.20	22.82
1.4	QPSK	3	1	22.40	23.20	22.81
1.4	QPSK	3	2	22.40	23.17	22.80
1.4	QPSK	6	0	22.36	23.26	22.80
1.4	16QAM	1	0	21.75	23.14	22.63
1.4	16QAM	1	2	21.78	23.09	22.75
1.4	16QAM	1	5	21.68	23.12	22.62
1.4	16QAM	3	0	21.59	23.17	22.71
1.4	16QAM	3	1	21.63	23.19	22.81
1.4	16QAM	3	2	21.62	23.14	22.79
1.4	16QAM	6	0	21.60	23.13	22.69



<LTE Band 4 Conducted Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				20050	20175	20300
Frequency (MHz)				1720	1732.5	1745
20	QPSK	1	0	23.66	23.86	23.69
20	QPSK	1	49	23.58	23.64	23.66
20	QPSK	1	99	23.52	23.59	23.49
20	QPSK	50	0	22.67	22.62	22.75
20	QPSK	50	24	22.63	22.69	22.70
20	QPSK	50	49	22.51	22.72	22.62
20	QPSK	100	0	22.63	22.63	22.69
20	16QAM	1	0	22.60	22.70	22.61
20	16QAM	1	49	22.51	22.63	22.55
20	16QAM	1	99	22.47	22.55	22.40
20	16QAM	50	0	21.70	21.67	21.78
20	16QAM	50	24	21.72	21.77	21.73
20	16QAM	50	49	21.56	21.78	21.56
20	16QAM	100	0	21.73	21.81	21.74
Channel				20025	20175	20325
Frequency (MHz)				1717.5	1732.5	1747.5
15	QPSK	1	0	23.67	23.70	23.72
15	QPSK	1	37	23.59	23.67	23.61
15	QPSK	1	74	23.61	23.65	23.49
15	QPSK	36	0	22.62	22.67	22.68
15	QPSK	36	18	22.60	22.62	22.62
15	QPSK	36	37	22.58	22.67	22.64
15	QPSK	75	0	22.65	22.73	22.64
15	16QAM	1	0	22.60	22.62	22.70
15	16QAM	1	37	22.52	22.66	22.53
15	16QAM	1	74	22.54	22.56	22.45
15	16QAM	36	0	21.69	21.68	21.66
15	16QAM	36	18	21.62	21.66	21.63
15	16QAM	36	37	21.66	21.70	21.61
15	16QAM	75	0	21.72	21.79	21.67



BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				20000	20175	20350
Frequency (MHz)				1715	1732.5	1750
10	QPSK	1	0	23.62	23.62	23.68
10	QPSK	1	24	23.59	23.62	23.58
10	QPSK	1	49	23.60	23.62	23.51
10	QPSK	25	0	22.56	22.61	22.60
10	QPSK	25	12	22.55	22.58	22.63
10	QPSK	25	24	22.53	22.59	22.64
10	QPSK	50	0	22.60	22.71	22.64
10	16QAM	1	0	22.59	22.60	22.66
10	16QAM	1	24	22.50	22.59	22.50
10	16QAM	1	49	22.49	22.50	22.42
10	16QAM	25	0	21.72	21.69	21.61
10	16QAM	25	12	21.70	21.73	21.65
10	16QAM	25	24	21.71	21.74	21.62
10	16QAM	50	0	21.70	21.72	21.67
Channel				19975	20175	20375
Frequency (MHz)				1712.5	1732.5	1752.5
5	QPSK	1	0	23.66	23.62	23.61
5	QPSK	1	12	23.59	23.63	23.62
5	QPSK	1	24	23.58	23.70	23.53
5	QPSK	12	0	22.58	22.63	22.61
5	QPSK	12	6	22.56	22.64	22.64
5	QPSK	12	11	22.56	22.66	22.57
5	QPSK	25	0	22.57	22.62	22.58
5	16QAM	1	0	22.51	22.55	22.55
5	16QAM	1	12	22.52	22.56	22.53
5	16QAM	1	24	22.50	22.52	22.44
5	16QAM	12	0	21.72	21.73	21.68
5	16QAM	12	6	21.70	21.72	21.65
5	16QAM	12	11	21.68	21.73	21.53
5	16QAM	25	0	21.69	21.70	21.54



BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				19965	20175	20385
Frequency (MHz)				1711.5	1732.5	1753.5
3	QPSK	1	0	23.58	23.67	23.64
3	QPSK	1	7	23.61	23.66	23.48
3	QPSK	1	14	23.63	23.66	23.58
3	QPSK	8	0	22.61	22.63	22.67
3	QPSK	8	4	22.58	22.60	22.55
3	QPSK	8	7	22.58	22.65	22.54
3	QPSK	15	0	22.60	22.62	22.57
3	16QAM	1	0	22.53	22.62	22.54
3	16QAM	1	7	22.48	22.59	22.47
3	16QAM	1	14	22.55	22.60	22.47
3	16QAM	8	0	21.70	21.73	21.70
3	16QAM	8	4	21.73	21.76	21.56
3	16QAM	8	7	21.69	21.76	21.54
3	16QAM	15	0	21.64	21.69	21.55
Channel				19957	20175	20393
Frequency (MHz)				1710.7	1732.5	1754.3
1.4	QPSK	1	0	23.68	23.72	23.57
1.4	QPSK	1	2	23.65	23.66	23.56
1.4	QPSK	1	5	23.63	23.69	23.60
1.4	QPSK	3	0	23.65	23.76	23.65
1.4	QPSK	3	1	23.63	23.73	23.62
1.4	QPSK	3	2	23.62	23.74	23.58
1.4	QPSK	6	0	22.58	22.68	22.64
1.4	16QAM	1	0	22.56	22.65	22.61
1.4	16QAM	1	2	22.56	22.68	22.50
1.4	16QAM	1	5	22.57	22.64	22.56
1.4	16QAM	3	0	22.49	22.60	22.54
1.4	16QAM	3	1	22.55	22.59	22.49
1.4	16QAM	3	2	22.53	22.58	22.49
1.4	16QAM	6	0	21.58	21.63	21.51

<LTE Band 7 Conducted Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				20850	21100	21350
Frequency (MHz)				2510	2535	2560
20	QPSK	1	0	23.99	23.85	23.54
20	QPSK	1	49	23.98	23.67	23.56
20	QPSK	1	99	23.98	23.58	23.77
20	QPSK	50	0	22.98	22.83	22.53
20	QPSK	50	24	22.93	22.73	22.52
20	QPSK	50	49	22.96	22.68	22.59
20	QPSK	100	0	22.90	22.69	22.48
20	16QAM	1	0	22.95	22.75	22.49
20	16QAM	1	49	22.90	22.70	22.41
20	16QAM	1	99	22.91	22.47	22.79
20	16QAM	50	0	21.93	21.83	21.51
20	16QAM	50	24	21.98	21.76	21.53
20	16QAM	50	49	21.95	21.74	21.71
20	16QAM	100	0	21.97	21.71	21.54
Channel				20825	21100	21375
Frequency (MHz)				2507.5	2535	2562.5
15	QPSK	1	0	23.96	23.84	23.57
15	QPSK	1	37	23.90	23.67	23.50
15	QPSK	1	74	23.98	23.68	23.78
15	QPSK	36	0	22.88	22.90	22.52
15	QPSK	36	18	22.89	22.78	22.58
15	QPSK	36	37	23.00	22.64	22.72
15	QPSK	75	0	22.82	22.74	22.58
15	16QAM	1	0	22.85	22.86	22.43
15	16QAM	1	37	22.81	22.63	22.47
15	16QAM	1	74	22.94	22.57	22.70
15	16QAM	36	0	21.92	21.83	21.47
15	16QAM	36	18	21.83	21.77	21.59
15	16QAM	36	37	21.94	21.66	21.75
15	16QAM	75	0	21.99	21.75	21.56



BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				20800	21100	21400
Frequency (MHz)				2505	2535	2565
10	QPSK	1	0	23.96	23.76	23.55
10	QPSK	1	24	23.91	23.74	23.68
10	QPSK	1	49	23.94	23.60	23.83
10	QPSK	25	0	22.90	22.65	22.51
10	QPSK	25	12	22.92	22.66	22.68
10	QPSK	25	24	22.85	22.67	22.74
10	QPSK	50	0	22.90	22.71	22.57
10	16QAM	1	0	22.84	22.74	22.44
10	16QAM	1	24	22.82	22.59	22.54
10	16QAM	1	49	22.91	22.63	22.80
10	16QAM	25	0	21.78	21.74	21.53
10	16QAM	25	12	21.89	21.77	21.68
10	16QAM	25	24	21.86	21.74	21.75
10	16QAM	50	0	21.82	21.82	21.55
Channel				20775	21100	21425
Frequency (MHz)				2502.5	2535	2567.5
5	QPSK	1	0	23.98	23.77	23.68
5	QPSK	1	12	23.85	23.66	23.66
5	QPSK	1	24	23.92	23.64	23.68
5	QPSK	12	0	22.94	22.75	22.64
5	QPSK	12	6	22.82	22.73	22.64
5	QPSK	12	11	22.94	22.73	22.74
5	QPSK	25	0	22.89	22.70	22.70
5	16QAM	1	0	22.86	22.69	22.56
5	16QAM	1	12	22.73	22.63	22.59
5	16QAM	1	24	22.78	22.60	22.72
5	16QAM	12	0	21.99	21.80	21.63
5	16QAM	12	6	21.91	21.79	21.65
5	16QAM	12	11	21.88	21.78	21.75
5	16QAM	25	0	21.88	21.77	21.67

<LTE Band 17 Conducted Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				23780	23790	23800
Frequency (MHz)				709	710	711
10	QPSK	1	0	23.41	23.42	23.40
10	QPSK	1	24	23.46	23.45	23.48
10	QPSK	1	49	23.56	23.60	23.59
10	QPSK	25	0	22.55	22.46	22.46
10	QPSK	25	12	22.49	22.46	22.54
10	QPSK	25	24	22.48	22.51	22.53
10	QPSK	50	0	22.52	22.51	22.48
10	16QAM	1	0	22.35	22.41	22.41
10	16QAM	1	24	22.43	22.40	22.41
10	16QAM	1	49	22.54	22.52	22.53
10	16QAM	25	0	21.59	21.60	21.56
10	16QAM	25	12	21.57	21.58	21.60
10	16QAM	25	24	21.61	21.59	21.64
10	16QAM	50	0	21.54	21.57	21.58
Channel				23755	23790	23825
Frequency (MHz)				706.5	710	713.5
5	QPSK	1	0	23.45	23.47	23.44
5	QPSK	1	12	23.43	23.46	23.51
5	QPSK	1	24	23.49	23.51	23.54
5	QPSK	12	0	22.45	22.50	22.45
5	QPSK	12	6	22.45	22.48	22.49
5	QPSK	12	11	22.55	22.51	22.54
5	QPSK	25	0	22.58	22.50	22.54
5	16QAM	1	0	22.45	22.39	22.38
5	16QAM	1	12	22.42	22.38	22.45
5	16QAM	1	24	22.46	22.44	22.46
5	16QAM	12	0	21.55	21.60	21.56
5	16QAM	12	6	21.54	21.55	21.59
5	16QAM	12	11	21.63	21.59	21.62
5	16QAM	25	0	21.61	21.59	21.57

Note: maximum average power for LTE.

3.2 Peak-to-Average Ratio

3.2.1 Description of the PAR Measurement

Power Complementary Cumulative Distribution Function (CCDF) curves provide a means for characterizing the power peaks of a digitally modulated signal on a statistical basis. A CCDF curve depicts the probability of the peak signal amplitude exceeding the average power level. Most contemporary measurement instrumentation include the capability to produce CCDF curves for an input signal provided that the instrument's resolution bandwidth can be set wide enough to accommodate the entire input signal bandwidth. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

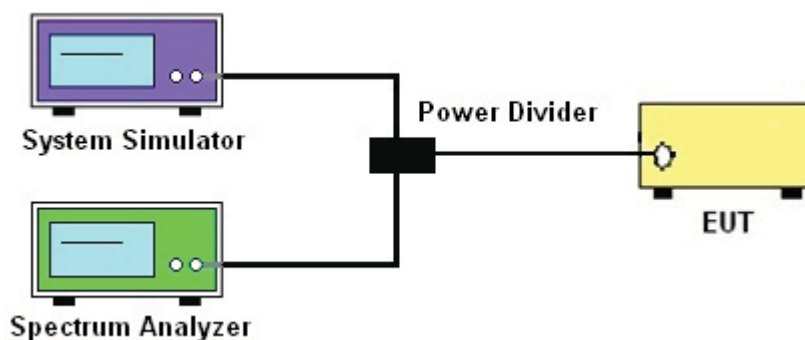
3.2.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.2.3 Test Procedures

1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. For LTE operating modes:
 - a. Set the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer.
 - b. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1 %.
3. Record the deviation as Peak to Average Ratio.

3.2.4 Test Setup



3.2.5 Test Result of Peak-to-Average Ratio

LTE Band 2						
BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				18700	18900	19100
Frequency (MHz)				1860	1880	1900
20	16QAM	1	0	5.88	6.32	6.03
20	16QAM	100	0	5.97	6.12	5.94

LTE Band 4						
BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				20050	20175	20300
Frequency (MHz)				1720	1732.5	1745
20	16QAM	1	0	5.80	5.06	6.15
20	16QAM	100	0	6.09	6.22	6.15

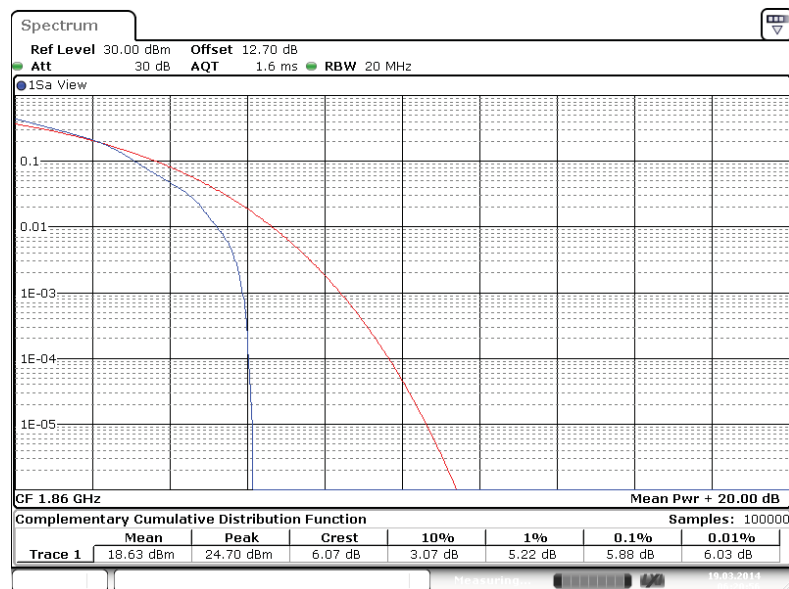
LTE Band 7						
BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				20850	21100	21350
Frequency (MHz)				2510	2535	2560
20	16QAM	1	0	5.83	5.87	6.03
20	16QAM	100	0	6.41	6.41	6.25

LTE Band 17						
BW [MHz]	Modulation	RB Size	RB Offset	Power (dBm) Low Ch. / Freq.	Power (dBm) Middle Ch. / Freq.	Power (dBm) High Ch. / Freq.
Channel				23780	23790	23800
Frequency (MHz)				709	710	711
10	16QAM	1	0	5.32	5.42	5.74
10	16QAM	50	0	5.93	5.90	5.83

3.2.6 Peak to Average Power Ratio

Peak-to-Average Ratio on LTE Band 2

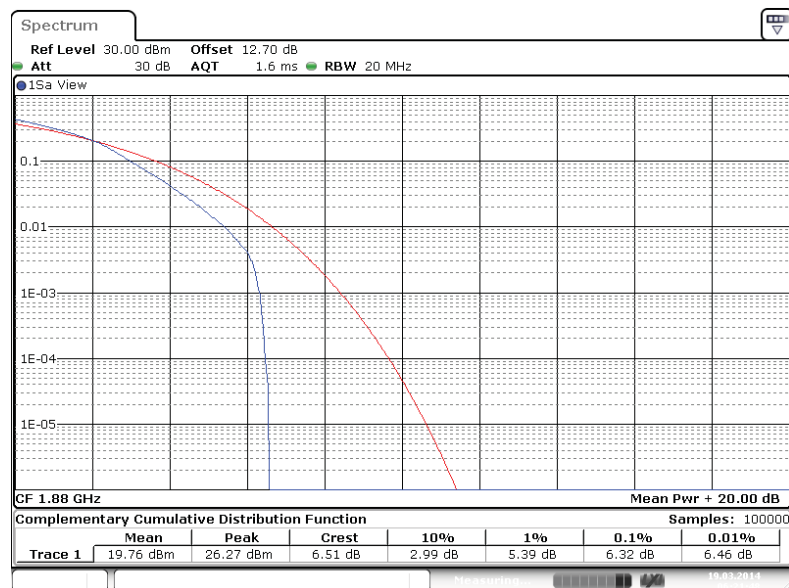
20MHz / 16QAM in Ch. 18700(1RB Size)



Date: 19.MAR.2014 06:20:57

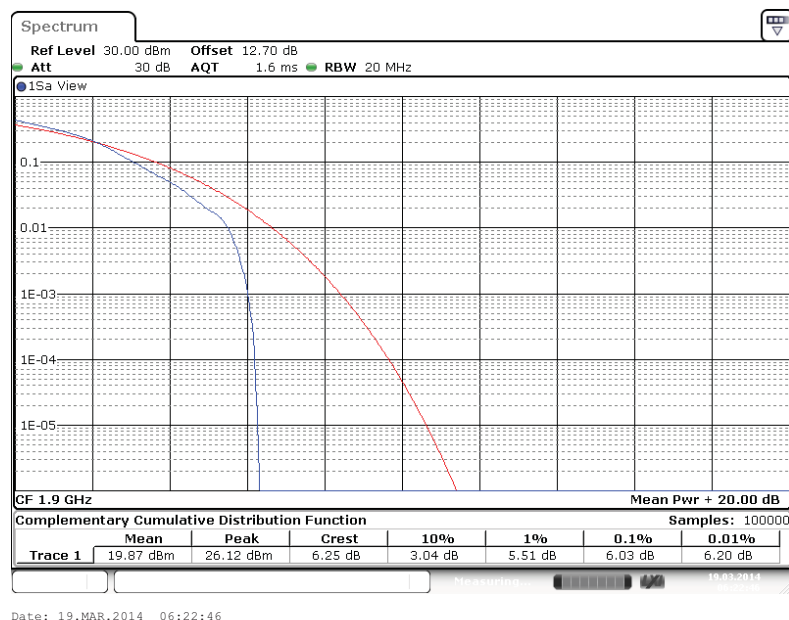
Peak-to-Average Ratio on LTE Band 2

20MHz / 16QAM in Ch. 18900 (1RB Size)

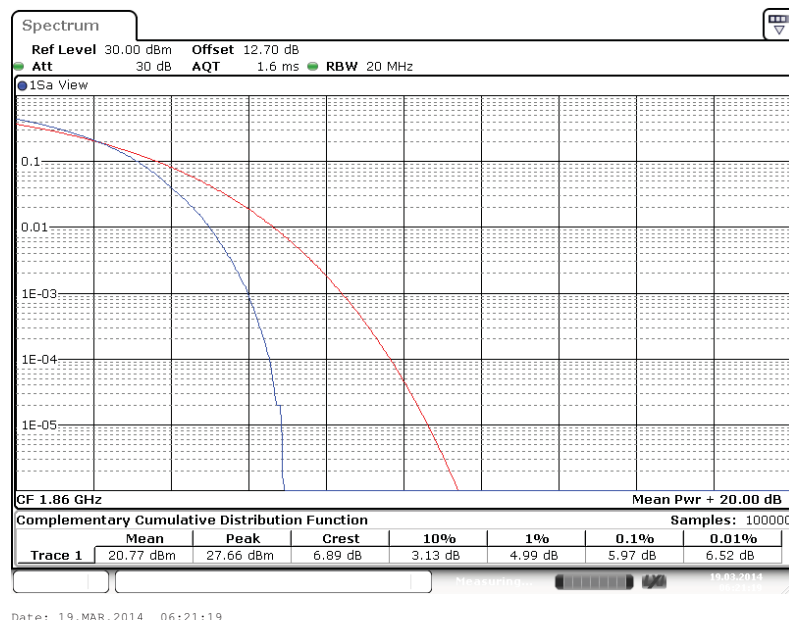


Date: 19.MAR.2014 06:21:49

Peak-to-Average Ratio on LTE Band 2 20MHz / 16QAM in Ch. 19100 (1RB Size)



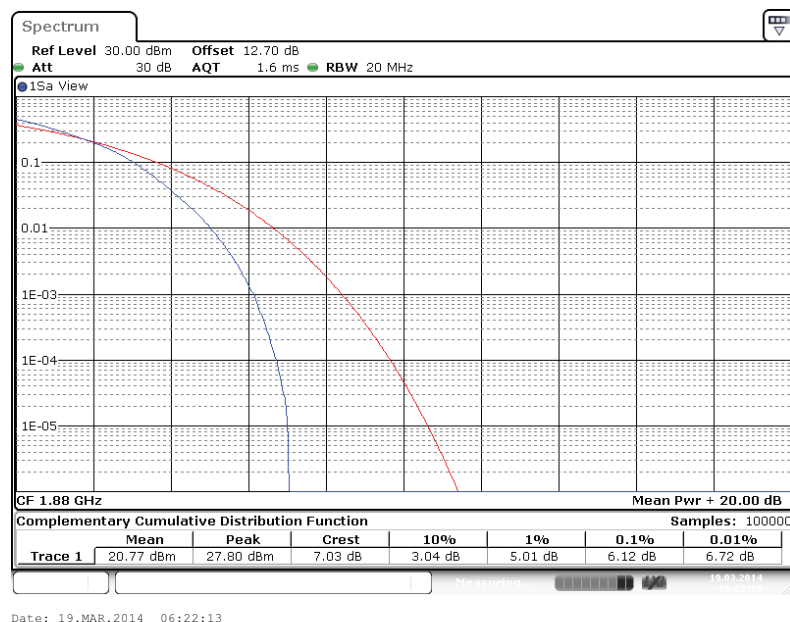
Peak-to-Average Ratio on LTE Band 2 20MHz / 16QAM in Ch. 18700 (100RB Size)





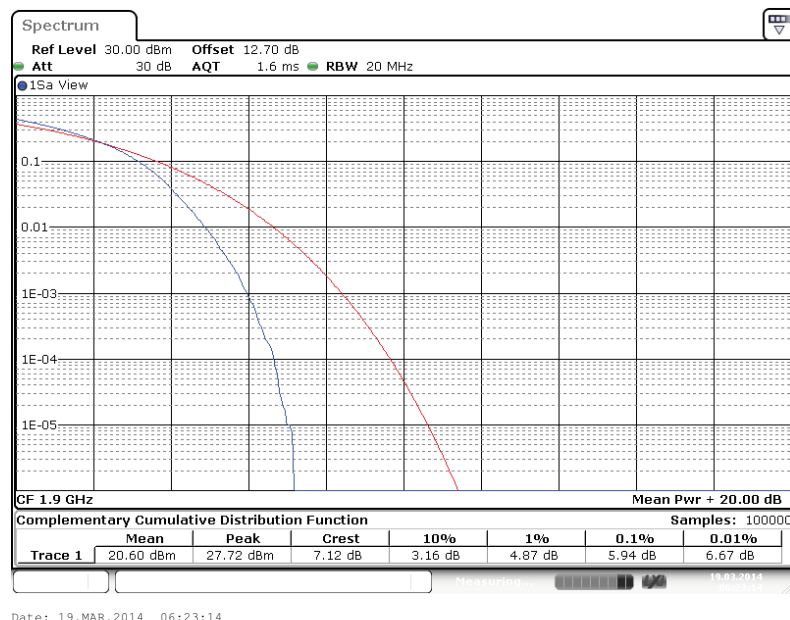
Peak-to-Average Ratio on LTE Band 2

20MHz / 16QAM in Ch. 18900 (100RB Size)



Peak-to-Average Ratio on LTE Band 2

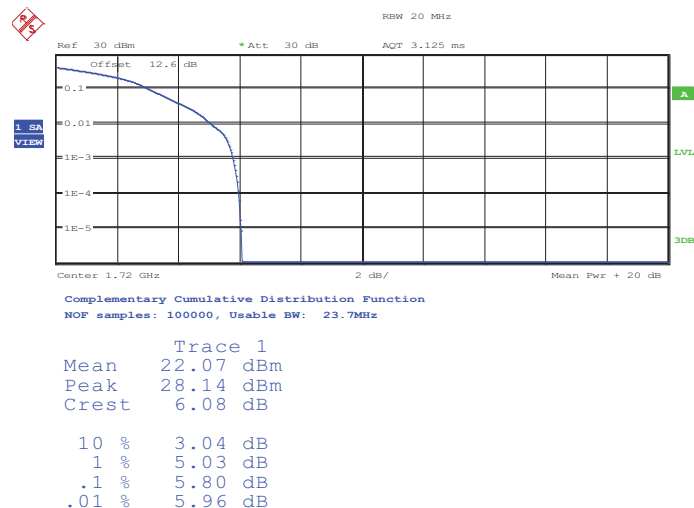
20MHz / 16QAM in Ch. 19100 (100RB Size)



Note: The total loss is 12.7 dB of the RF cable and attenuator for LTE Band 2,
and has been compensated to the spectrum analyzer offset.

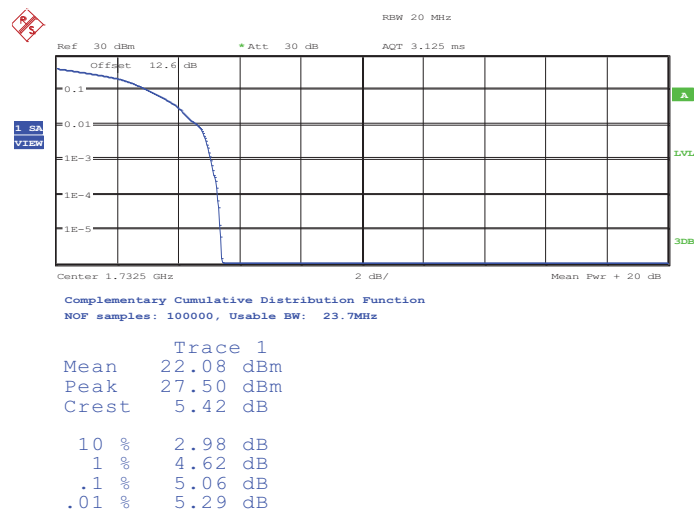


Peak-to-Average Ratio on LTE Band 4
20MHz / 16QAM in Ch. 20050 (1RB Size)



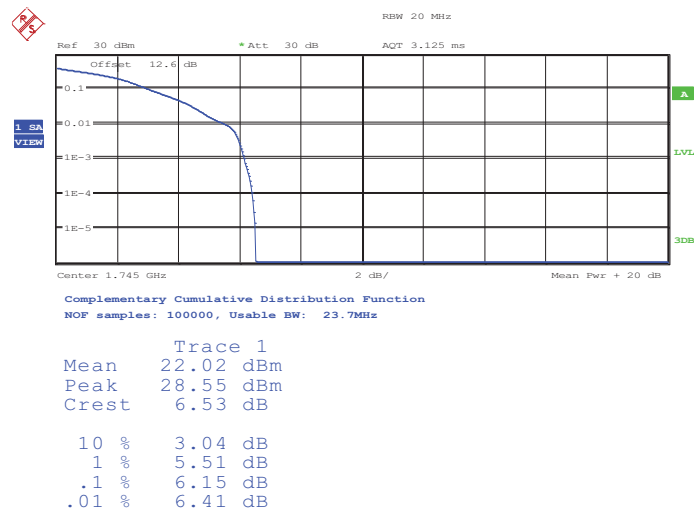
Date: 26.DEC.2013 09:29:35

Peak-to-Average Ratio on LTE Band 4
20MHz / 16QAM in Ch. 20175 (1RB Size)



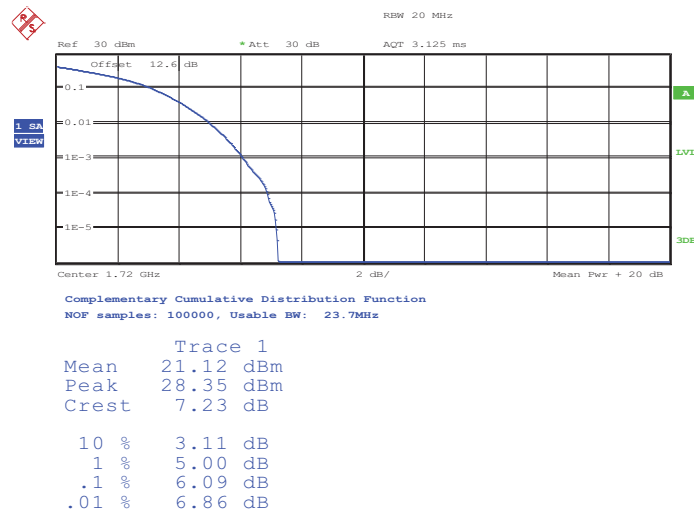
Date: 26.DEC.2013 09:39:10

Peak-to-Average Ratio on LTE Band 4
20MHz / 16QAM in Ch. 20300 (1RB Size)



Date: 26.DEC.2013 09:40:11

Peak-to-Average Ratio on LTE Band 4
20MHz / 16QAM in Ch. 20050 (100RB Size)

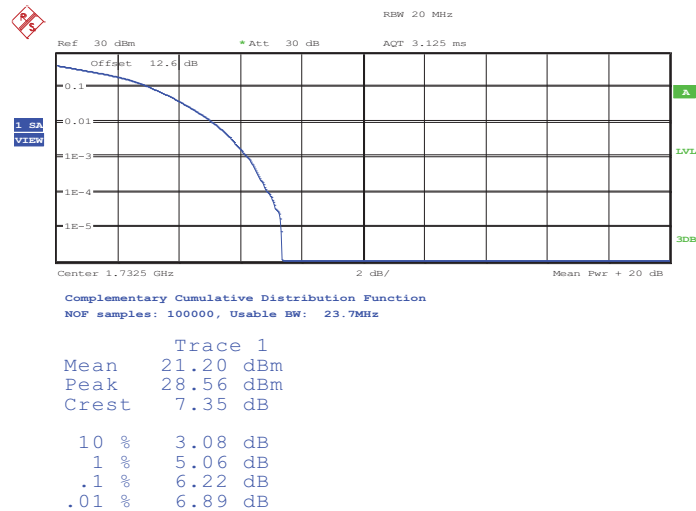


Date: 26.DEC.2013 09:29:13



Peak-to-Average Ratio on LTE Band 4

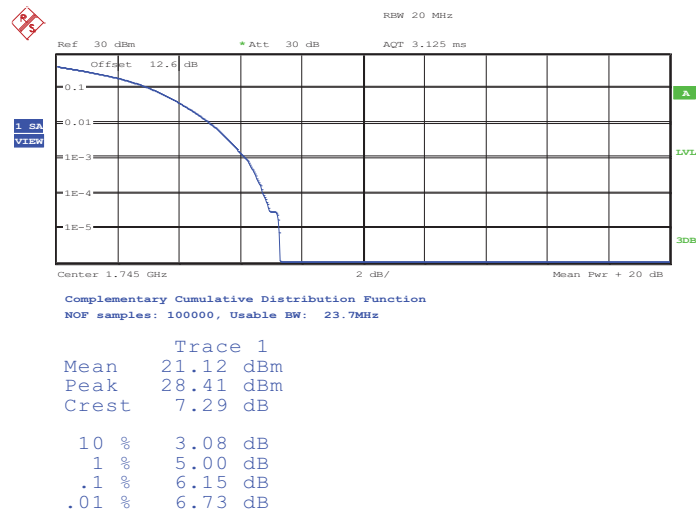
20MHz / 16QAM in Ch. 20175 (100RB Size)



Date: 26.DEC.2013 09:39:31

Peak-to-Average Ratio on LTE Band 4

20MHz / 16QAM in Ch. 20300 (100RB Size)

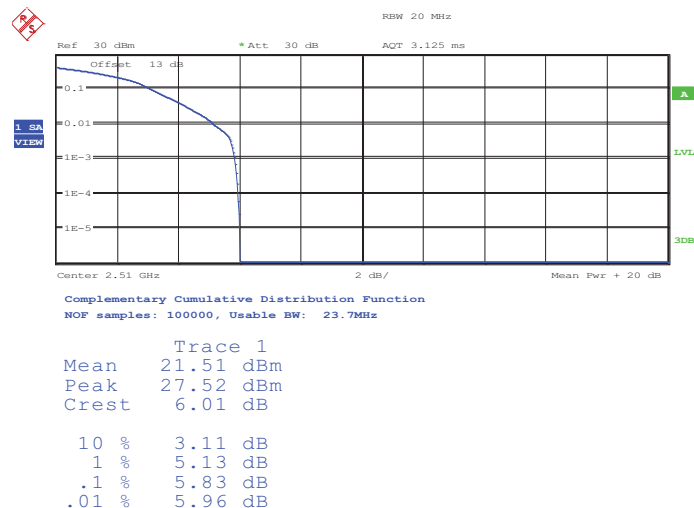


Date: 26.DEC.2013 09:39:53

Note: The total loss is 12.6 dB of the RF cable and attenuator for LTE Band 4,
and has been compensated to the spectrum analyzer offset.

Peak-to-Average Ratio on LTE Band 7

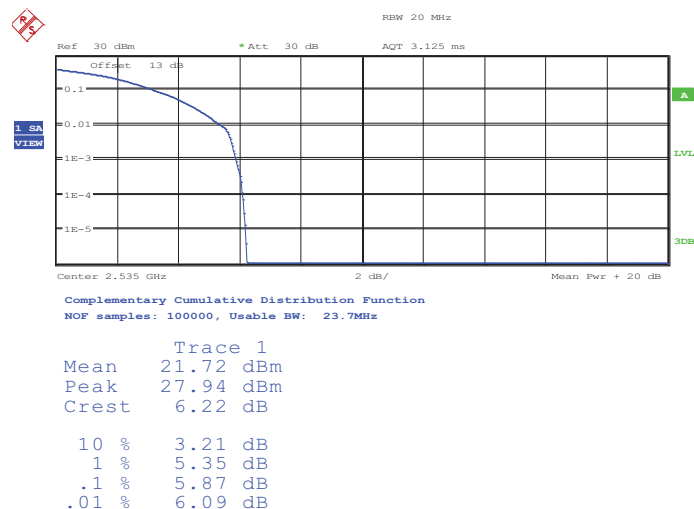
20MHz / 16QAM in Ch. 20850 (1RB Size)



Date: 17.DEC.2013 20:03:07

Peak-to-Average Ratio on LTE Band 7

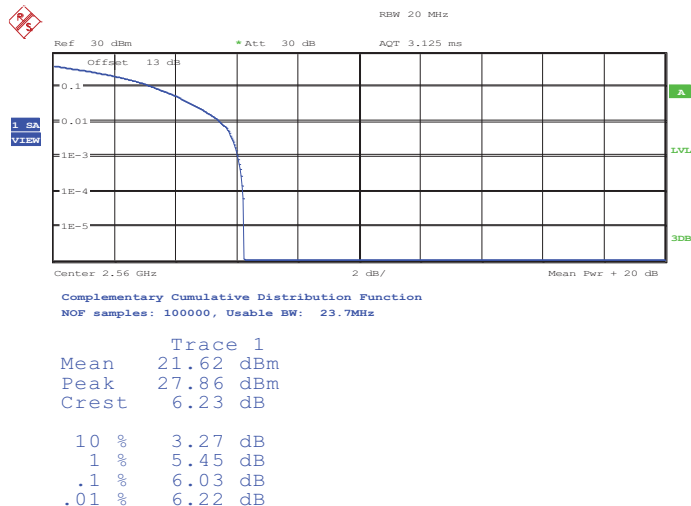
20MHz / 16QAM in Ch. 21100 (1RB Size)



Date: 17.DEC.2013 20:02:12

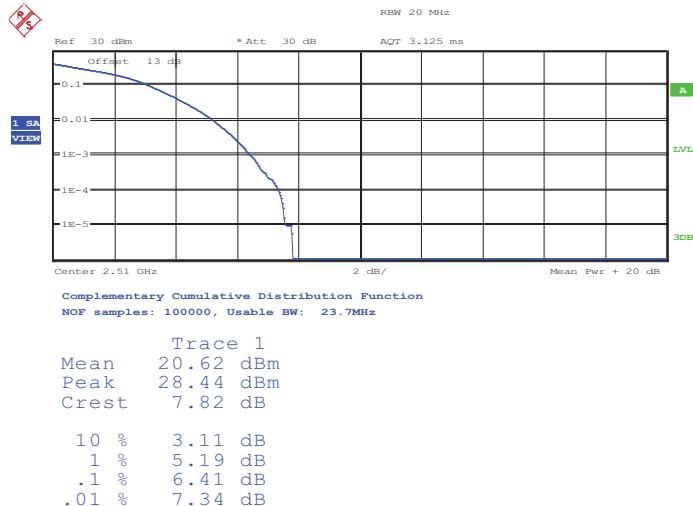


Peak-to-Average Ratio on LTE Band 7
20MHz / 16QAM in Ch. 21350 (1RB Size)



Date: 17.DEC.2013 20:01:45

Peak-to-Average Ratio on LTE Band 7
20MHz / 16QAM in Ch. 20850 (100RB Size)

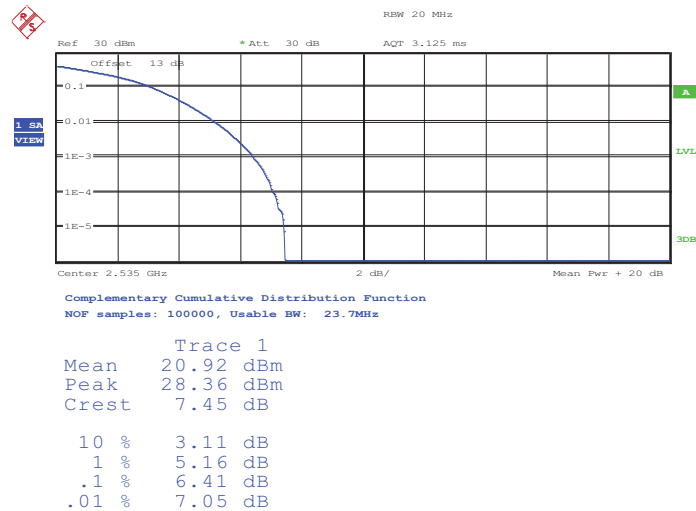


Date: 17.DEC.2013 20:02:42



Peak-to-Average Ratio on LTE Band 7

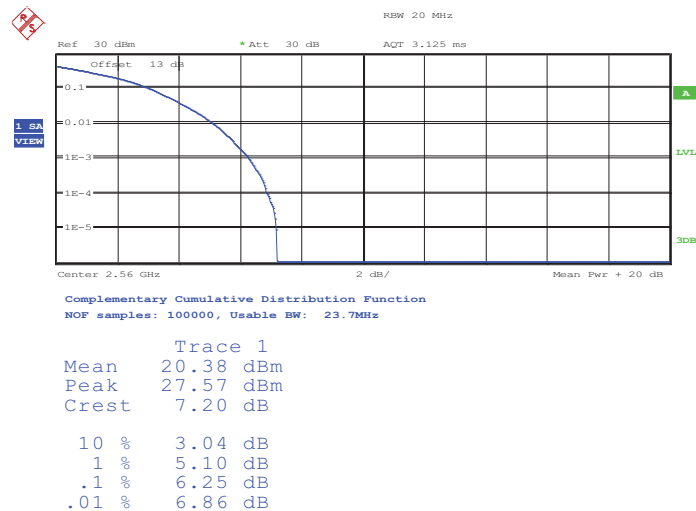
20MHz / 16QAM in Ch. 21100 (100RB Size)



Date: 17.DEC.2013 20:02:24

Peak-to-Average Ratio on LTE Band 7

20MHz / 16QAM in Ch. 21350 (100RB Size)



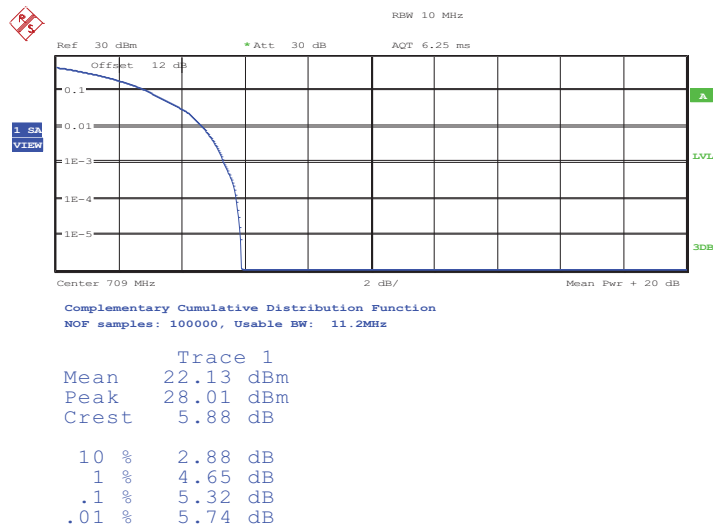
Date: 17.DEC.2013 20:00:56

Note: The total loss is 13 dB of the RF cable and attenuator for LTE Band 7,
and has been compensated to the spectrum analyzer offset.



Peak-to-Average Ratio on LTE Band 17

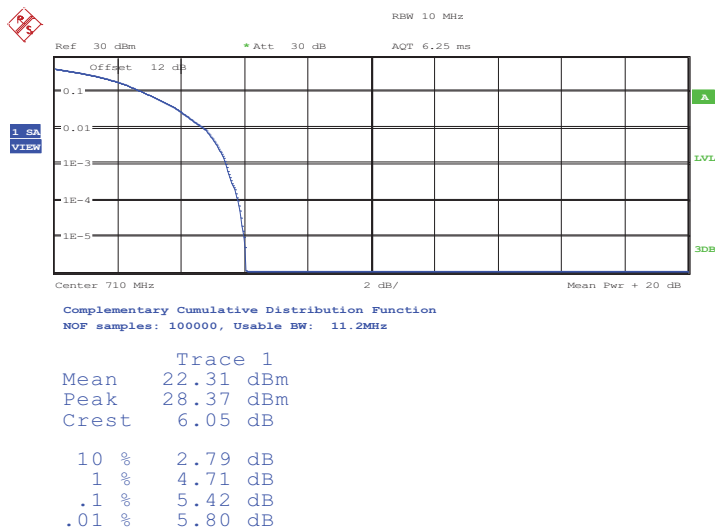
10MHz / 16QAM in Ch. 23780 (1RB Size)



Date: 26.DEC.2013 09:45:56

Peak-to-Average Ratio on LTE Band 17

10MHz / 16QAM in Ch. 23790 (1RB Size)

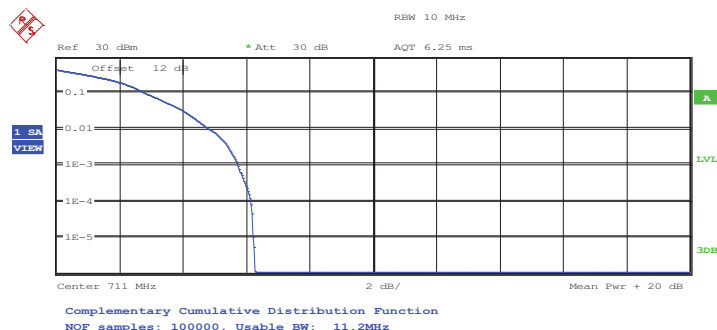


Date: 26.DEC.2013 09:49:07



Peak-to-Average Ratio on LTE Band 17

10MHz / 16QAM in Ch. 23800 (1RB Size)



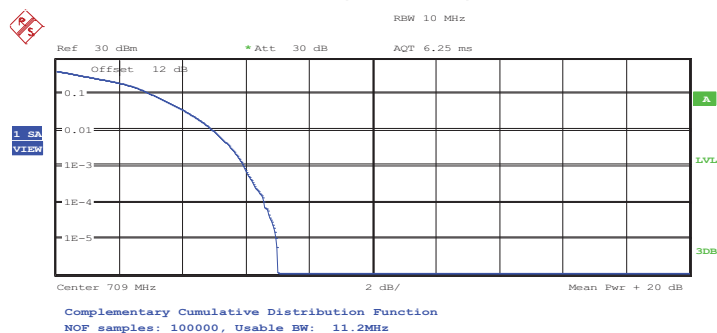
Trace 1

Mean	22.31	dBm
Peak	28.59	dBm
Crest	6.28	dB
10 %	2.82	dB
1 %	4.84	dB
.1 %	5.74	dB
.01 %	6.12	dB

Date: 26.DEC.2013 09:50:49

Peak-to-Average Ratio on LTE Band 17

10MHz / 16QAM in Ch. 23780 (50RB Size)



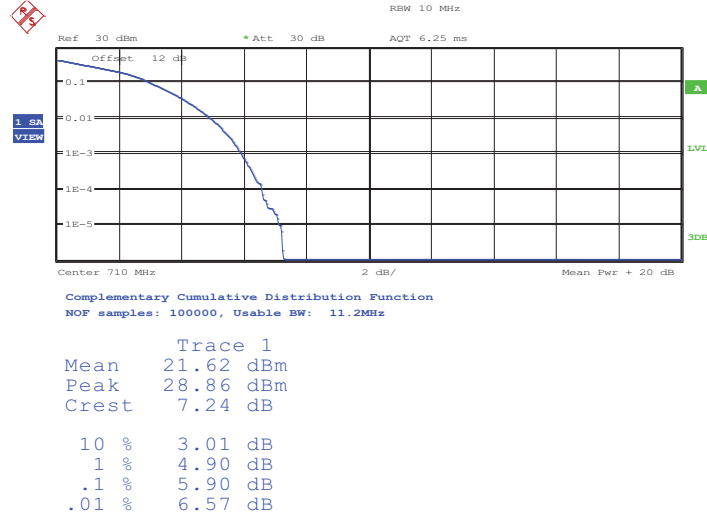
Trace 1

Mean	21.63	dBm
Peak	28.64	dBm
Crest	7.01	dB
10 %	3.01	dB
1 %	4.94	dB
.1 %	5.93	dB
.01 %	6.57	dB

Date: 26.DEC.2013 09:46:43

Peak-to-Average Ratio on LTE Band 17

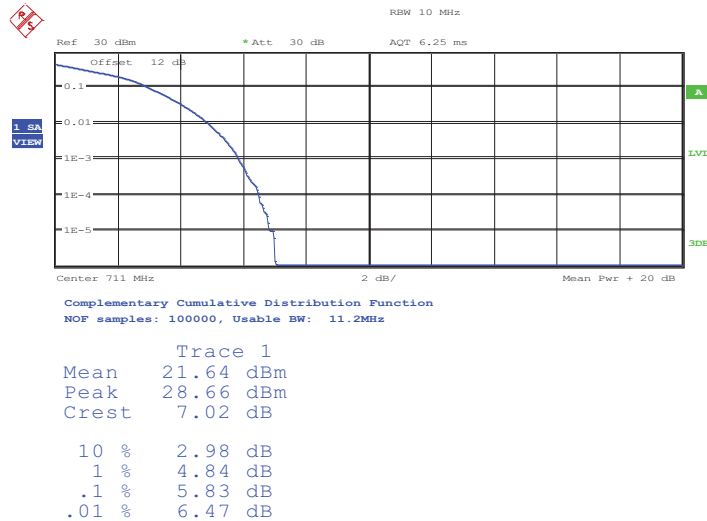
10MHz / 16QAM in Ch. 23790 (50RB Size)



Date: 26.DEC.2013 09:47:09

Peak-to-Average Ratio on LTE Band 17

10MHz / 16QAM in Ch. 23800 (50RB Size)



Date: 26.DEC.2013 09:50:13

Note: The total loss is 12 dB of the RF cable and attenuator for LTE Band 17,
and has been compensated to the spectrum analyzer offset.

3.3 Effective Radiated Power and Equivalent Isotropic Radiated Power Measurement

3.3.1 Description of the ERP/EIRP Measurement

Effective radiated power output measurements by substitution method according to ANSI / TIA / EIA-603-C-2004, and the spectrum analyzer configuration follows KDB 971168 D01 Power Meas. License Digital Systems v01. Mobile and portable (hand-held) stations operating are limited to average ERP of 3 watt with LTE band 17(FCC Only).

Equivalent isotropic radiated power output measurements by substitution method according to ANSI / TIA / EIA-603-C-2004, and the spectrum analyzer configuration follows KDB 971168 D01 Power Meas. License Digital Systems v01. Mobile and portable (hand-held) stations operating are limited to average EIRP of 2 watts with LTE band 2, 7, and 1 watt with LTE band 4, and 5 watts with LTE band 17(IC Only).

3.3.2 Measuring Instruments

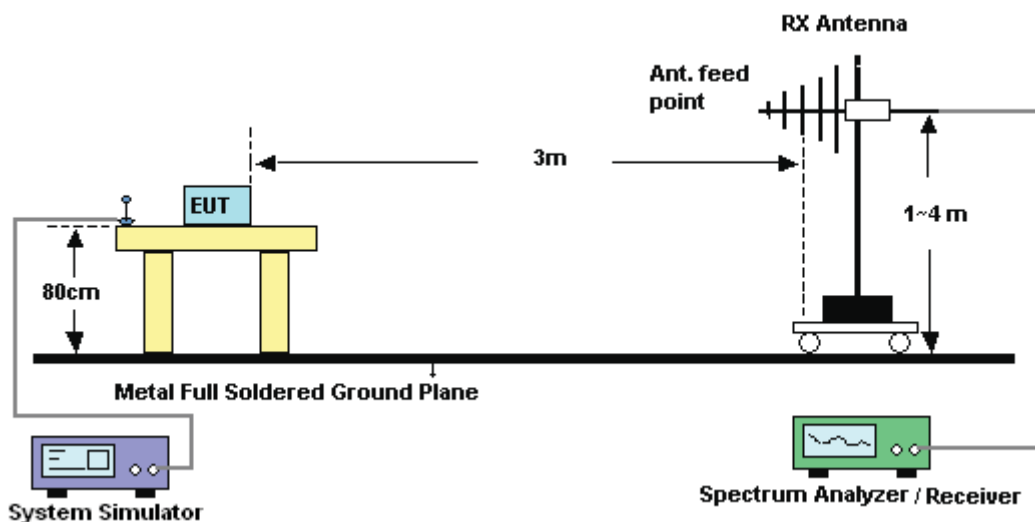
The measuring equipment is listed in the section 4 of this test report.

3.3.3 Test Procedures

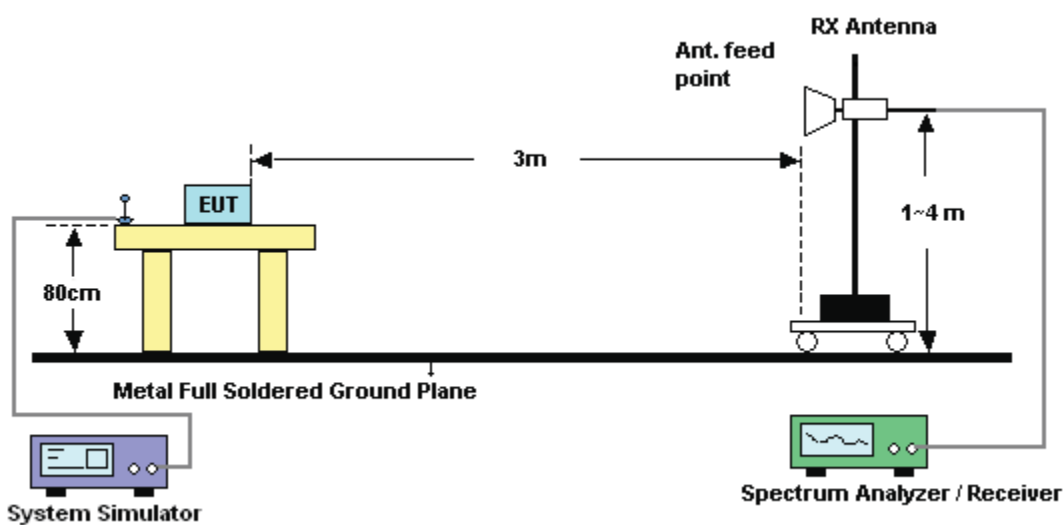
1. The EUT was placed on a non-conductive rotating platform with 0.8 meter height in a semi-anechoic chamber. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and a spectrum analyzer which used a channel power option across EUT's signal bandwidth per section 4.0 of KDB 971168 D01.
2. During the measurement, the EUT was enforced in maximum power and linked with a base station. The highest emission was recorded from analyzer power level (LVL) from the 360 degrees rotation of the turntable and the test antenna raised and lowered over a range from 1 to 4 meters in both horizontally and vertically polarized orientations.
3. Effective Isotropic Radiated Power (EIRP) was measured by substitution method according to TIA/EIA-603-C. The EUT was replaced by dipole antenna (substitution antenna) at same location, and then a known power from S.G. was applied into the dipole antenna through a Tx cable, and then recorded the maximum Analyzer reading through raised and lowered the test antenna. The correction factor (in dB) = S.G. - Tx Cable loss + Substitution antenna gain - Analyzer reading. Then the EUT's EIRP was calculated with the correction factor, $EIRP = LVL + \text{Correction factor}$ and $ERP = EIRP - 2.15$.

3.3.4 Test Setup

For Effective Radiated Power



For Equivalent Isotropic Radiated Power



3.3.5 Test Result of ERP/EIRP

LTE Band 2 Radiated Power EIRP for BW 1.4MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.7	-21.68	43.69	22.01	0.1589
1880.0	-20.92	44.79	23.87	0.2438
1909.3	-20.90	43.59	22.69	0.1858
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.7	-32.90	45.72	12.82	0.0191
1880.0	-32.56	46.78	14.22	0.0264
1909.3	-33.60	46.77	13.17	0.0207

LTE Band 2 Radiated Power EIRP for BW 1.4MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.7	-22.67	43.69	21.02	0.1265
1880.0	-21.24	44.79	23.55	0.2265
1909.3	-21.56	43.59	22.03	0.1596
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.7	-33.27	45.72	12.45	0.0176
1880.0	-33.05	46.78	13.73	0.0236
1909.3	-34.33	46.77	12.44	0.0175

LTE Band 2 Radiated Power EIRP for BW 3MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1851.5	-21.83	43.69	21.86	0.1535
1880.0	-20.97	44.79	23.82	0.2410
1908.5	-21.60	43.59	21.99	0.1581
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1851.5	-32.34	45.72	13.38	0.0218
1880.0	-32.88	46.78	13.90	0.0245
1908.5	-33.13	46.77	13.64	0.0231

LTE Band 2 Radiated Power EIRP for BW 3MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1851.5	-22.47	43.69	21.22	0.1324
1880.0	-21.74	44.79	23.05	0.2018
1908.5	-22.20	43.59	21.39	0.1377
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1851.5	-32.82	45.72	12.90	0.0195
1880.0	-33.48	46.78	13.30	0.0214
1908.5	-33.88	46.77	12.89	0.0195

LTE Band 2 Radiated Power EIRP for BW 5MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1852.5	-22.23	43.69	21.46	0.1400
1880.0	-21.26	44.79	23.53	0.2254
1907.5	-21.71	43.59	21.88	0.1542
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1852.5	-32.79	45.72	12.93	0.0196
1880.0	-33.34	46.78	13.44	0.0221
1907.5	-34.06	46.77	12.71	0.0187

LTE Band 2 Radiated Power EIRP for BW 5MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1852.5	-23.00	43.69	20.69	0.1172
1880.0	-22.15	44.79	22.64	0.1837
1907.5	-22.48	43.59	21.11	0.1291
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1852.5	-33.39	45.72	12.33	0.0171
1880.0	-33.80	46.78	12.98	0.0199
1907.5	-34.88	46.77	11.89	0.0155

LTE Band 2 Radiated Power EIRP for BW 10MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1855.0	-21.28	43.69	22.41	0.1742
1880.0	-21.49	44.79	23.30	0.2138
1905.0	-21.30	43.59	22.29	0.1694
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1855.0	-32.72	45.72	13.00	0.0200
1880.0	-33.72	46.78	13.06	0.0202
1905.0	-33.82	46.77	12.95	0.0197

LTE Band 2 Radiated Power EIRP for BW 10MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1855.0	-21.90	43.69	21.79	0.1510
1880.0	-22.29	44.79	22.50	0.1778
1905.0	-22.13	43.59	21.46	0.1400
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1855.0	-33.36	45.72	12.36	0.0172
1880.0	-34.65	46.78	12.13	0.0163
1905.0	-34.55	46.77	12.22	0.0167

LTE Band 2 Radiated Power EIRP for BW 15MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1857.5	-22.15	43.69	21.54	0.1426
1880.0	-20.96	44.79	23.83	0.2415
1902.5	-22.16	43.59	21.43	0.1390
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1857.5	-32.83	45.72	12.89	0.0195
1880.0	-33.46	46.78	13.32	0.0215
1902.5	-33.45	46.77	13.32	0.0215

LTE Band 2 Radiated Power EIRP for BW 15MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1857.5	-22.88	43.69	20.81	0.1205
1880.0	-21.68	44.79	23.11	0.2046
1902.5	-22.81	43.59	20.78	0.1197
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1857.5	-33.24	45.72	12.48	0.0177
1880.0	-34.29	46.78	12.49	0.0177
1902.5	-34.02	46.77	12.75	0.0188

LTE Band 2 Radiated Power EIRP for BW 20MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1860.0	-22.78	43.69	20.91	0.1233
1880.0	-21.30	44.79	23.49	0.2234
1900.0	-22.08	43.59	21.51	0.1416
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1860.0	-32.38	45.72	13.34	0.0216
1880.0	-34.03	46.78	12.75	0.0188
1900.0	-33.08	46.77	13.69	0.0234

LTE Band 2 Radiated Power EIRP for BW 20MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1860.0	-23.29	43.69	20.40	0.1096
1880.0	-22.14	44.79	22.65	0.1841
1900.0	-22.77	43.59	20.82	0.1208
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1860.0	-33.28	45.72	12.44	0.0175
1880.0	-35.11	46.78	11.67	0.0147
1900.0	-33.50	46.77	13.27	0.0212

LTE Band 4 Radiated Power EIRP for BW 1.4MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1710.70	-17.43	41.65	22.07	0.1611
1732.50	-19.02	42.95	21.78	0.1507
1754.30	-18.59	42.28	21.54	0.1426
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1710.70	-23.04	43.57	18.38	0.0689
1732.50	-22.97	45.94	20.82	0.1208
1754.30	-23.46	45.2	19.59	0.0910

LTE Band 4 Radiated Power EIRP for BW 1.4MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1710.70	-18.23	41.65	21.27	0.1340
1732.50	-19.28	42.95	21.52	0.1419
1754.30	-18.87	42.28	21.26	0.1337
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1710.70	-23.99	43.57	17.43	0.0553
1732.50	-23.77	45.94	20.02	0.1005
1754.30	-23.82	45.2	19.23	0.0838

LTE Band 4 Radiated Power EIRP for BW 3MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1711.50	-16.67	41.58	22.76	0.1888
1732.50	-17.88	42.95	22.92	0.1959
1753.50	-18.22	42.12	21.75	0.1496
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1711.50	-22.34	43.49	19.00	0.0794
1732.50	-23.57	45.94	20.22	0.1052
1753.50	-23.00	44.94	19.79	0.0953

LTE Band 4 Radiated Power EIRP for BW 3MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1711.50	-18.43	41.58	21.00	0.1259
1732.50	-20.70	42.95	20.10	0.1023
1753.50	-19.55	42.12	20.42	0.1102
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1711.50	-23.84	43.49	17.50	0.0562
1732.50	-23.19	45.94	20.60	0.1148
1753.50	-24.26	44.94	18.53	0.0713

LTE Band 4 Radiated Power EIRP for BW 5MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1712.5	-18.37	41.62	21.10	0.1288
1732.5	-18.52	42.06	21.39	0.1377
1752.5	-19.18	41.73	20.40	0.1096
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1712.5	-23.18	43.45	18.12	0.0649
1732.5	-22.90	45.68	20.63	0.1156
1752.5	-24.25	44.88	18.48	0.0705

LTE Band 4 Radiated Power EIRP for BW 5MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1712.5	-19.96	41.62	19.51	0.0893
1732.5	-19.69	42.06	20.22	0.1052
1752.5	-18.80	41.73	20.78	0.1197
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1712.5	-23.76	43.45	17.54	0.0568
1732.5	-23.91	45.68	19.62	0.0916
1752.5	-24.58	44.88	18.15	0.0653

LTE Band 4 Radiated Power EIRP for BW 10MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1715.0	-18.21	42.12	21.76	0.1500
1732.5	-16.98	42.06	22.93	0.1963
1750.0	-17.60	41.57	21.82	0.1521
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1715.0	-23.09	44.81	19.57	0.0906
1732.5	-22.90	45.68	20.63	0.1156
1750.0	-23.70	44.74	18.89	0.0774

LTE Band 4 Radiated Power EIRP for BW 10MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1715.0	-19.35	42.12	20.62	0.1153
1732.5	-17.63	42.06	22.28	0.1690
1750.0	-18.57	41.57	20.85	0.1216
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1715.0	-24.12	44.81	18.54	0.0714
1732.5	-23.38	45.68	20.15	0.1035
1750.0	-24.87	44.74	17.72	0.0592

LTE Band 4 Radiated Power EIRP for BW 15MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1717.50	-18.69	41.79	20.95	0.1245
1732.50	-17.50	42.06	22.41	0.1742
1747.50	-18.44	41.31	20.72	0.1180
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1717.50	-23.15	44.99	19.69	0.0931
1732.50	-23.25	45.68	20.28	0.1067
1747.50	-23.64	44.95	19.16	0.0824

LTE Band 4 Radiated Power EIRP for BW 15MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1717.50	-19.27	41.79	20.37	0.1089
1732.50	-17.91	42.06	22.00	0.1585
1747.50	-18.61	41.31	20.55	0.1135
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1717.50	-24.22	44.99	18.62	0.0728
1732.50	-24.48	45.68	19.05	0.0804
1747.50	-24.26	44.95	18.54	0.0714

LTE Band 4 Radiated Power EIRP for BW 20MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1720.00	-18.38	41.43	20.90	0.1230
1732.50	-17.80	42.06	22.11	0.1626
1745.00	-18.61	41.15	20.39	0.1094
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1720.00	-23.22	43.87	18.50	0.0708
1732.50	-24.21	45.68	19.32	0.0855
1745.00	-24.79	44.39	17.45	0.0556

LTE Band 4 Radiated Power EIRP for BW 20MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1720.00	-19.39	41.43	19.89	0.0975
1732.50	-18.76	42.06	21.15	0.1303
1745.00	-18.68	41.15	20.32	0.1076
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1720.00	-24.09	43.87	17.63	0.0579
1732.50	-25.22	45.68	18.31	0.0678
1745.00	-25.02	44.39	17.22	0.0527

LTE Band 7 Radiated Power EIRP for BW 5MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
2502.5	-18.05	44.76	26.71	0.4688
2535.0	-18.02	45.37	27.35	0.5433
2567.5	-19.25	45.12	25.87	0.3864
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
2502.5	-28.33	45.76	17.43	0.0553
2535.0	-28.38	47.04	18.66	0.0735
2567.5	-28.50	46.31	17.81	0.0604

LTE Band 7 Radiated Power EIRP for BW 5MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
2502.5	-18.46	44.76	26.30	0.4266
2535.0	-19.18	45.37	26.19	0.4159
2567.5	-19.49	45.12	25.63	0.3656
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
2502.5	-29.19	45.76	16.57	0.0454
2535.0	-29.31	47.04	17.73	0.0593
2567.5	-28.95	46.31	17.36	0.0545

LTE Band 7 Radiated Power EIRP for BW 10MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
2505.0	-17.23	44.97	27.74	0.5943
2535.0	-17.63	45.37	27.74	0.5943
2565.0	-19.76	45.11	25.35	0.3428
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
2505.0	-27.99	45.97	17.98	0.0628
2535.0	-27.37	47.04	19.67	0.0927
2565.0	-28.26	46.30	18.04	0.0637

LTE Band 7 Radiated Power EIRP for BW 10MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
2505.0	-18.83	44.97	26.14	0.4111
2535.0	-19.87	45.37	25.50	0.3548
2565.0	-20.95	45.11	24.16	0.2606
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
2505.0	-28.24	45.97	17.73	0.0593
2535.0	-27.68	47.04	19.36	0.0863
2565.0	-28.60	46.30	17.70	0.0589

LTE Band 7 Radiated Power EIRP for BW 15MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
2507.5	-19.02	44.92	25.90	0.3890
2535.0	-19.03	45.37	26.34	0.4305
2562.5	-21.21	45.10	23.89	0.2449
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
2507.5	-28.40	45.92	17.52	0.0565
2535.0	-27.32	47.04	19.72	0.0938
2562.5	-28.71	46.29	17.58	0.0573

LTE Band 7 Radiated Power EIRP for BW 15MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
2507.5	-20.03	44.92	24.89	0.3083
2535.0	-19.93	45.37	25.44	0.3499
2562.5	-21.33	45.10	23.77	0.2382
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
2507.5	-28.66	45.92	17.26	0.0532
2535.0	-27.66	47.04	19.38	0.0867
2562.5	-29.04	46.29	17.25	0.0531

LTE Band 7 Radiated Power EIRP for BW 20MHz / QPSK				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
2510.0	-18.99	44.94	25.95	0.3936
2535.0	-19.47	45.37	25.90	0.3890
2560.0	-19.52	45.10	25.58	0.3614
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
2510.0	-28.08	45.94	17.86	0.0611
2535.0	-28.72	47.04	18.32	0.0679
2560.0	-28.18	46.29	18.11	0.0647

LTE Band 7 Radiated Power EIRP for BW 20MHz / 16QAM				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
2510.0	-20.90	44.94	24.04	0.2535
2535.0	-20.20	45.37	25.17	0.3289
2560.0	-21.75	45.10	23.35	0.2163
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
2510.0	-29.39	45.94	16.55	0.0452
2535.0	-30.24	47.04	16.80	0.0479
2560.0	-29.37	46.29	16.92	0.0492

LTE Band 17 Radiated Power ERP/EIRP for BW 5MHz / QPSK						
Horizontal Polarization						
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)	EIRP (dBm)	EIRP (W)
706.50	-12.62	30.84	16.07	0.0405	18.22	0.0664
710.00	-12.55	30.86	16.16	0.0413	18.31	0.0678
713.50	-12.53	30.81	16.13	0.0410	18.28	0.0673
Vertical Polarization						
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)	EIRP (dBm)	EIRP (W)
706.50	-26.82	34.59	5.62	0.0036	7.77	0.0060
710.00	-26.48	34.03	5.40	0.0035	7.55	0.0057
713.50	-25.77	33.68	5.76	0.0038	7.91	0.0062

LTE Band 17 Radiated Power ERP/EIRP for BW 5MHz / 16QAM						
Horizontal Polarization						
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)	EIRP (dBm)	EIRP (W)
706.50	-13.49	30.84	15.20	0.0331	17.35	0.0543
710.00	-13.38	30.86	15.33	0.0341	17.48	0.0560
713.50	-13.45	30.81	15.21	0.0332	17.36	0.0545
Vertical Polarization						
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)	EIRP (dBm)	EIRP (W)
706.50	-27.15	34.59	5.29	0.0034	7.44	0.0055
710.00	-26.85	34.03	5.03	0.0032	7.18	0.0052
713.50	-26.24	33.68	5.29	0.0034	7.44	0.0055

* ERP = LVL (dBm) + Correction Factor (dB) - 2.15

LTE Band 17 Radiated Power ERP/EIRP for BW 10MHz / QPSK						
Horizontal Polarization						
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)	EIRP (dBm)	EIRP (W)
709.00	-11.97	30.77	16.65	0.0462	18.80	0.0759
710.00	-11.96	30.86	16.75	0.0473	18.90	0.0776
711.00	-13.61	30.82	15.06	0.0321	17.21	0.0526
Vertical Polarization						
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)	EIRP (dBm)	EIRP (W)
709.00	-25.68	34.16	6.33	0.0043	8.48	0.0070
710.00	-26.54	34.03	5.34	0.0034	7.49	0.0056
711.00	-26.62	33.94	5.17	0.0033	7.32	0.0054

LTE Band 17 Radiated Power ERP/EIRP for BW 10MHz / 16QAM						
Horizontal Polarization						
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)	EIRP (dBm)	EIRP (W)
709.00	-12.70	30.77	15.92	0.0391	18.07	0.0741
710.00	-12.95	30.86	15.76	0.0377	17.91	0.0618
711.00	-13.89	30.82	14.78	0.0301	16.93	0.0493
Vertical Polarization						
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)	EIRP (dBm)	EIRP (W)
709.00	-26.04	34.16	5.97	0.0040	8.12	0.0065
710.00	-26.86	34.03	5.02	0.0032	7.17	0.0052
711.00	-27.19	33.94	4.60	0.0029	6.75	0.0047

* ERP = LVL (dBm) + Correction Factor (dB) - 2.15

3.4 Occupied Bandwidth

3.4.1 Description of Occupied Bandwidth Measurement

The occupied bandwidth is the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean transmitted power.

The 26dB occupied bandwidth is the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal 26 dB.

The 26 dB emission bandwidth is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated 26 dB below the maximum in-band spectral density of the modulated signal. Spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth equal to approximately 1.0% of the emission bandwidth.

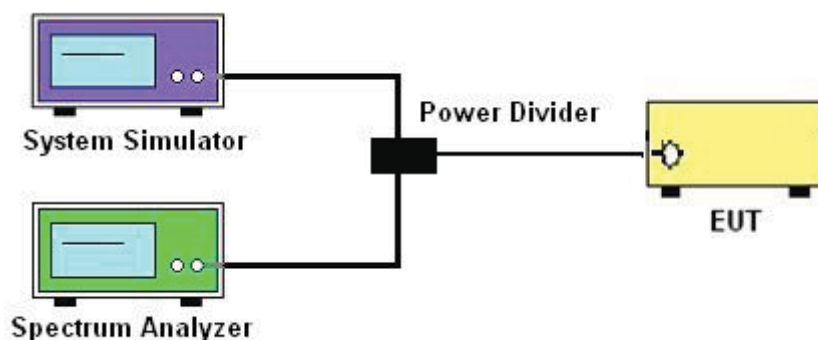
3.4.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.4.3 Test Procedures

1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. The 26dB and 99% occupied bandwidth (BW) of the middle channel for the highest RF powers with full RB sizes were measured.

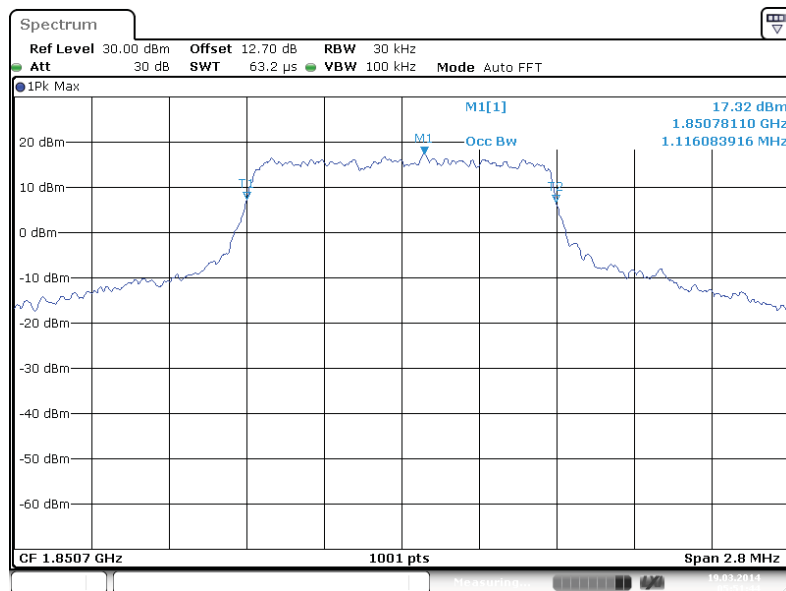
3.4.4 Test Setup



3.4.5 Test Result (Plots) of Occupied Bandwidth

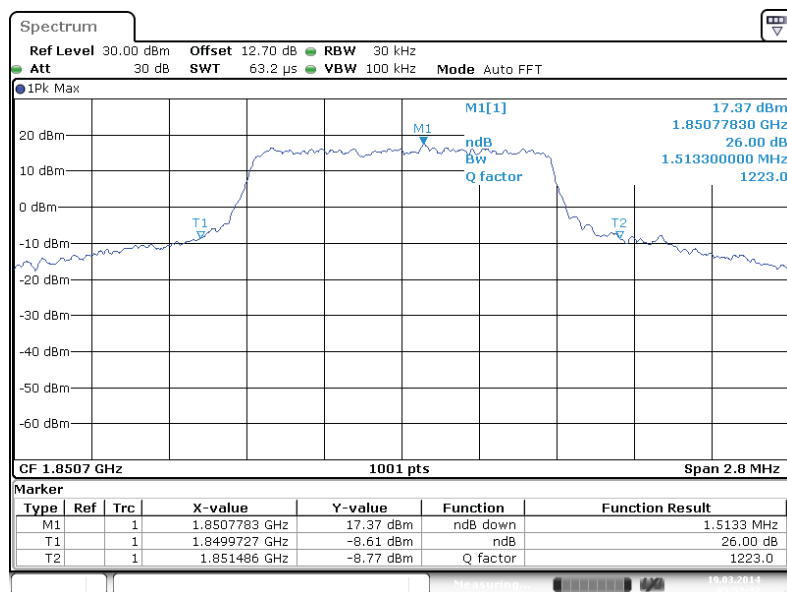
Band :	LTE Band 2	BW / Mod. :	1.4MHz / QPSK
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99% Occupied Bandwidth Plot on Channel 18607



Date: 19.MAR.2014 05:51:44

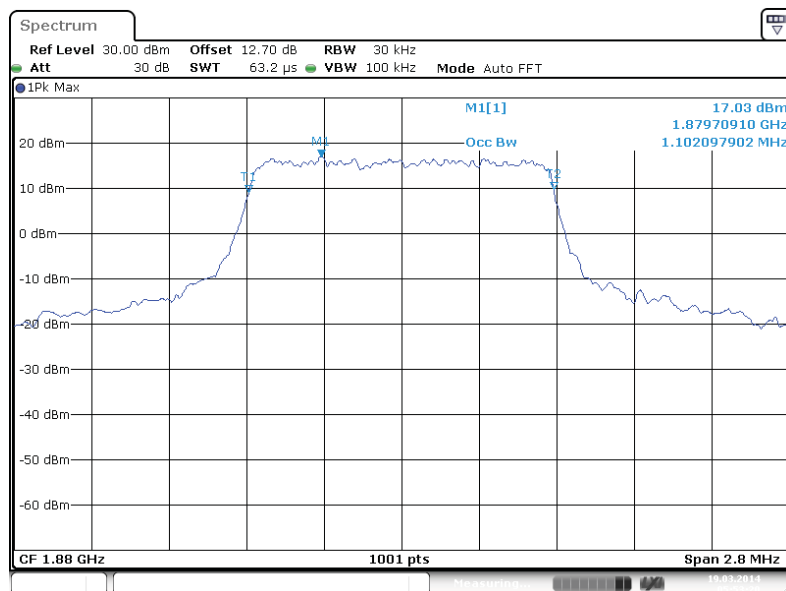
26dB Bandwidth Plot on Channel 18607



Date: 19.MAR.2014 05:52:32

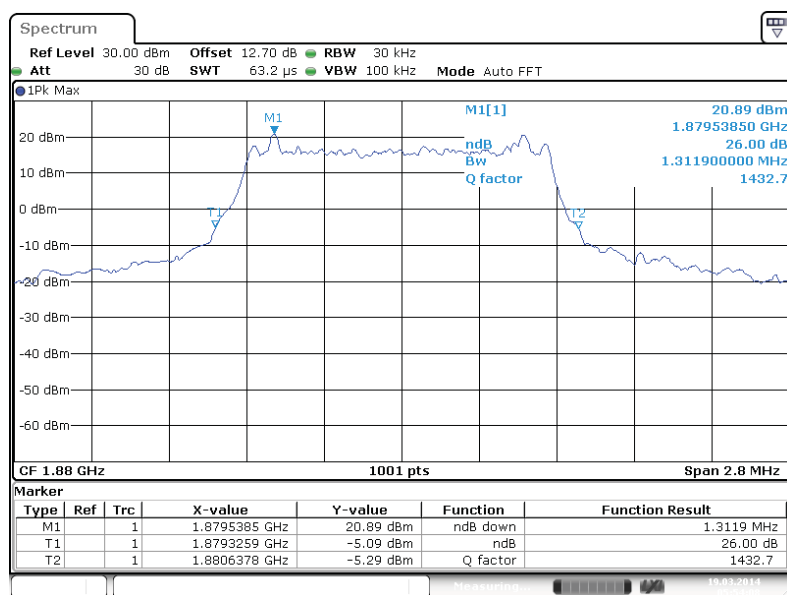


99% Occupied Bandwidth Plot on Channel 18900



Date: 19.MAR.2014 05:53:21

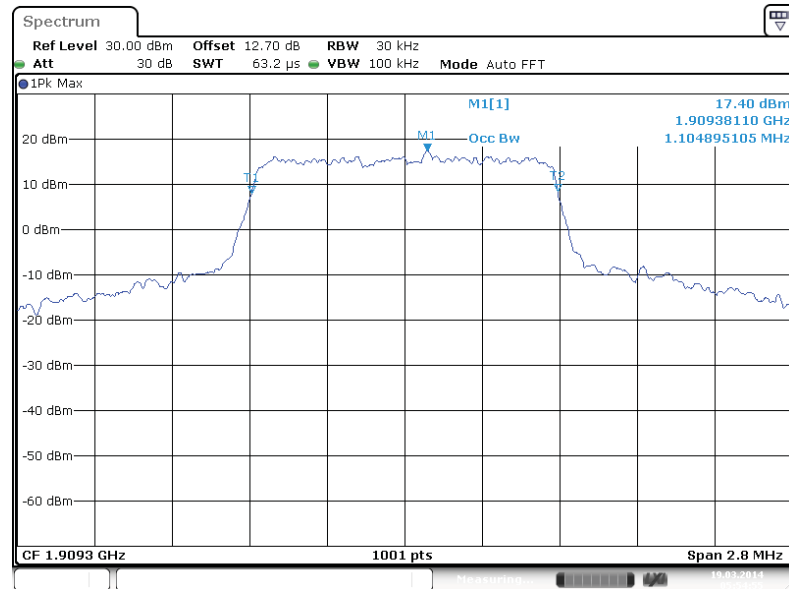
26dB Bandwidth Plot on Channel 18900



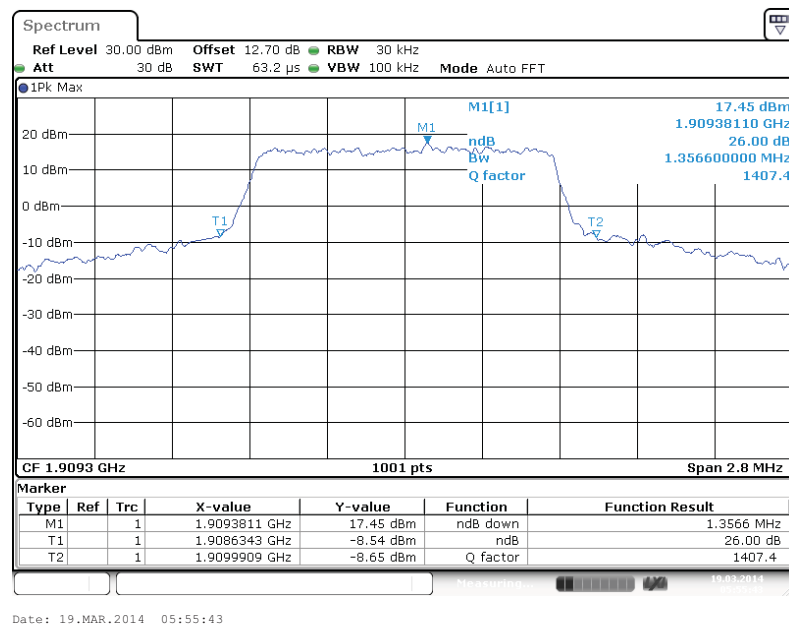
Date: 19.MAR.2014 05:54:08



99% Occupied Bandwidth Plot on Channel 19193



26dB Bandwidth Plot on Channel 19193

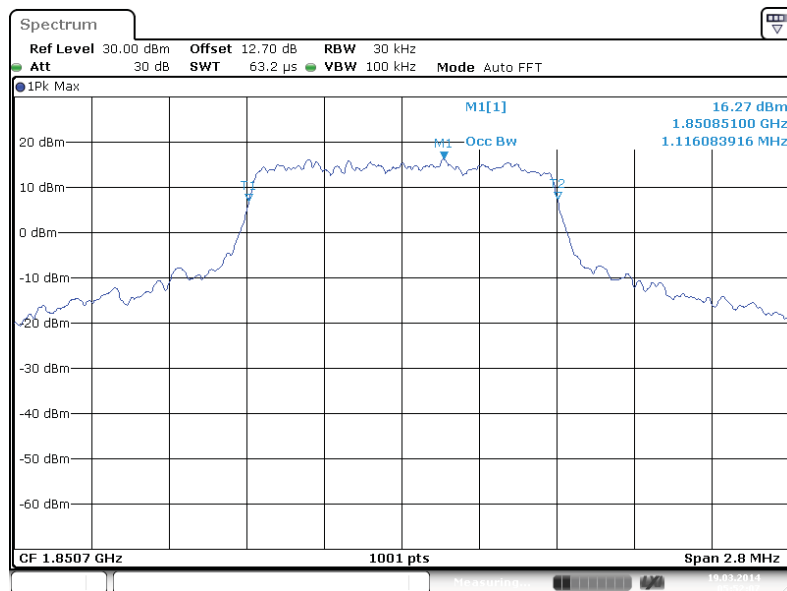




Band : LTE Band 2

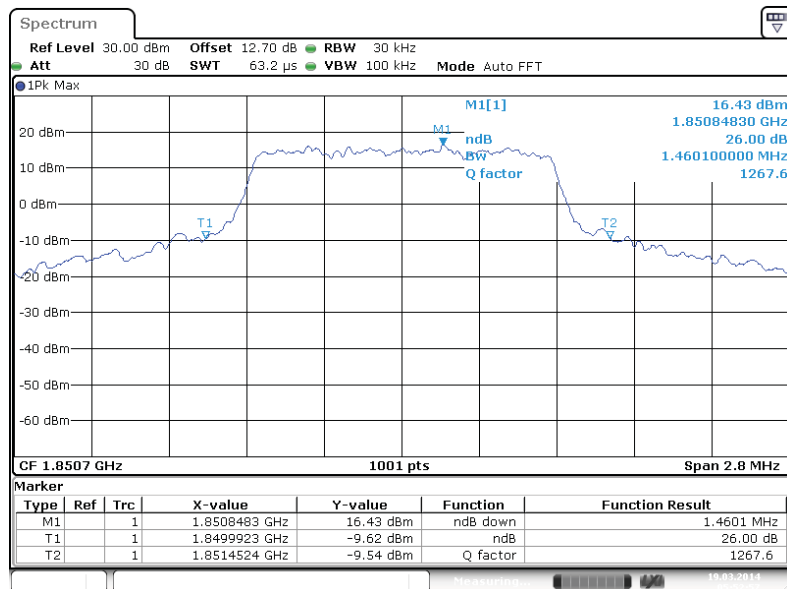
BW / Mod. : 1.4MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 18607



Date: 19.MAR.2014 05:52:07

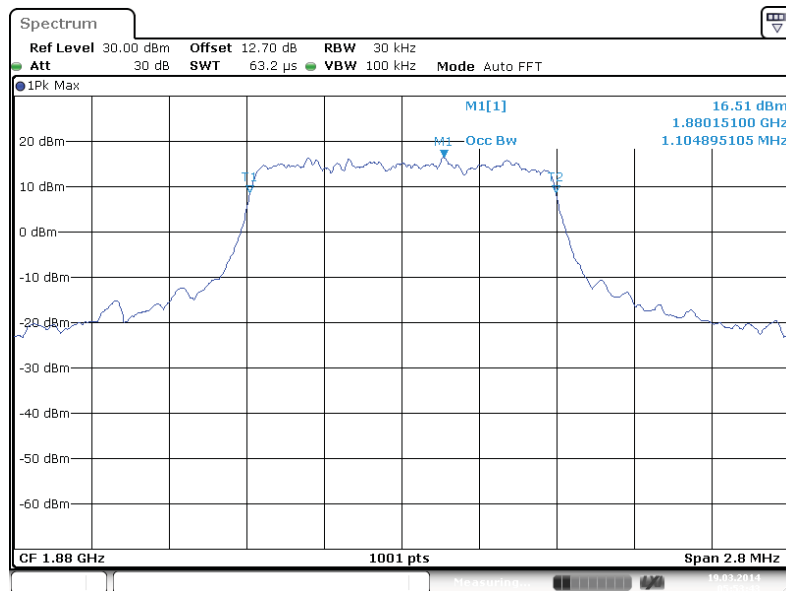
26dB Bandwidth Plot on Channel 18607



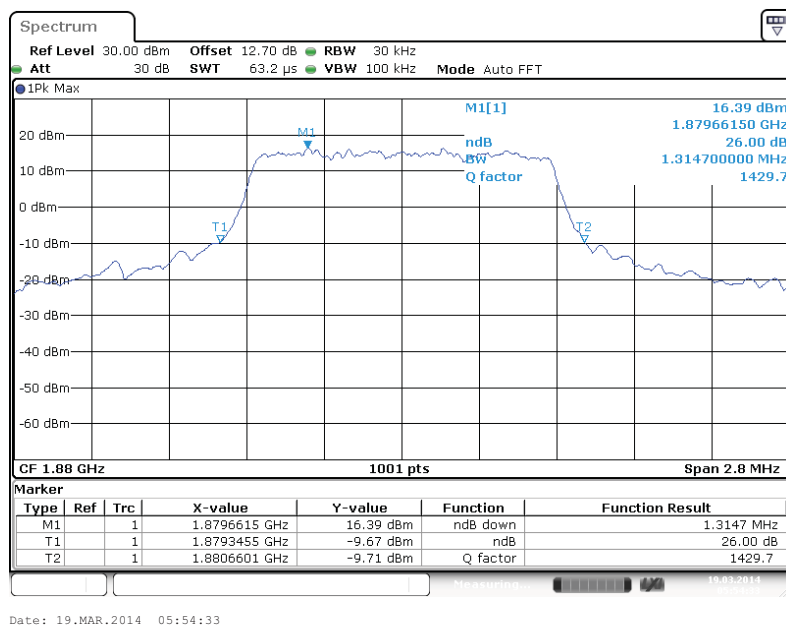
Date: 19.MAR.2014 05:52:57



99% Occupied Bandwidth Plot on Channel 18900

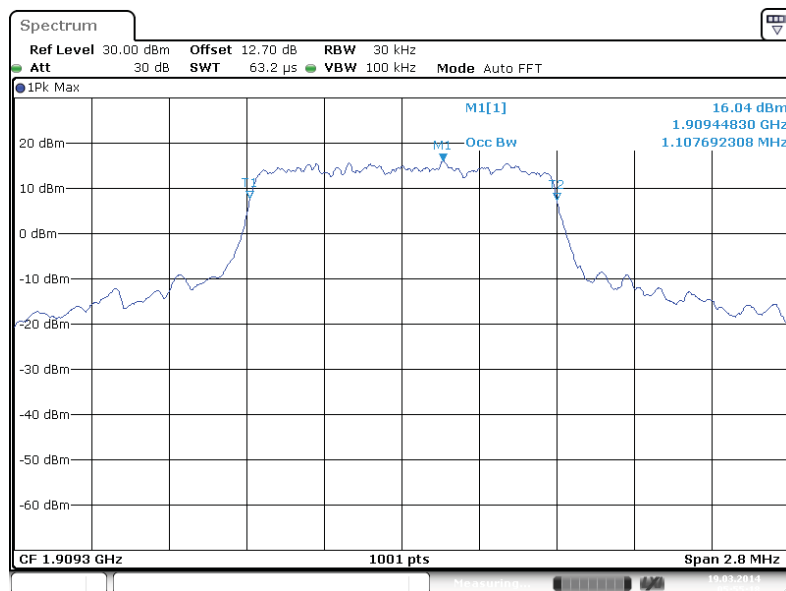


26dB Bandwidth Plot on Channel 18900

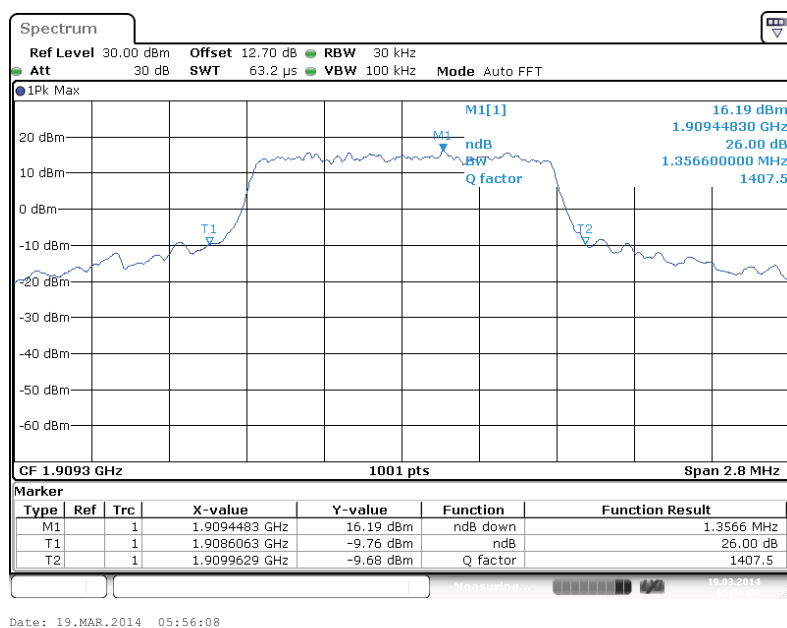




99% Occupied Bandwidth Plot on Channel 19193



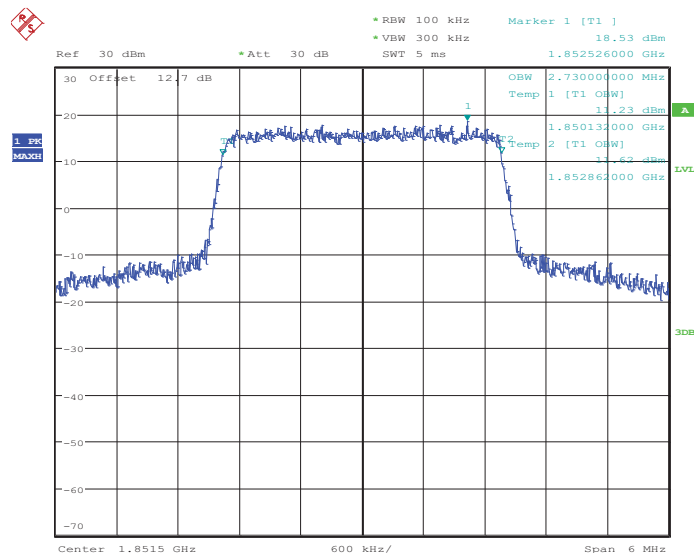
26dB Bandwidth Plot on Channel 19193





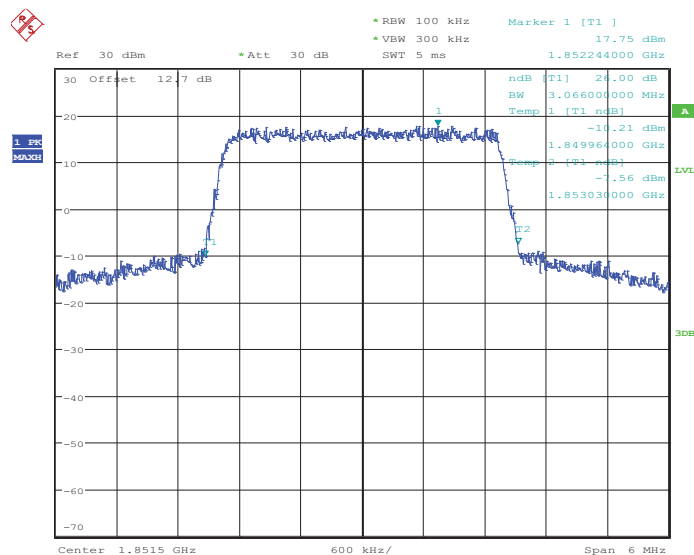
Band :	LTE Band 2	BW / Mod. :	3MHz / QPSK
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99% Occupied Bandwidth Plot on Channel 18615



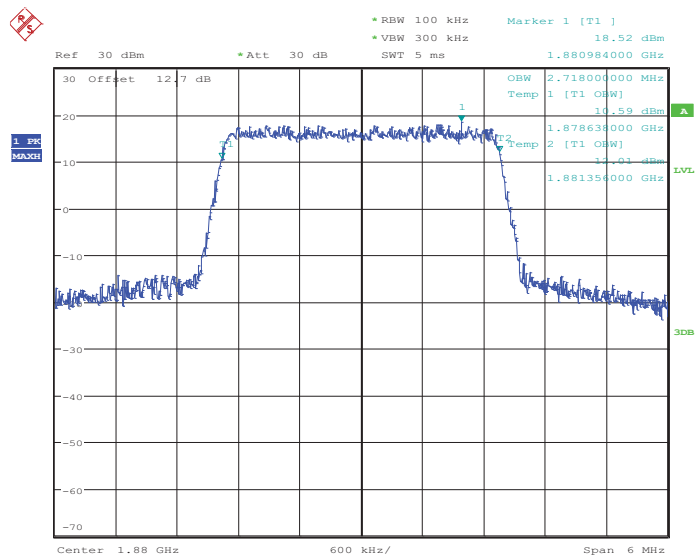
Date: 24.MAR.2014 15:55:55

26dB Bandwidth Plot on Channel 18615



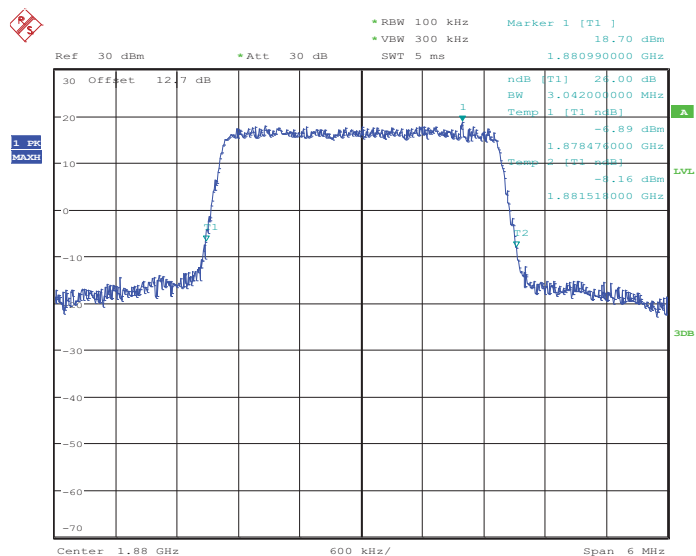
Date: 24.MAR.2014 15:56:27

99% Occupied Bandwidth Plot on Channel 18900



Date: 24.MAR.2014 16:02:02

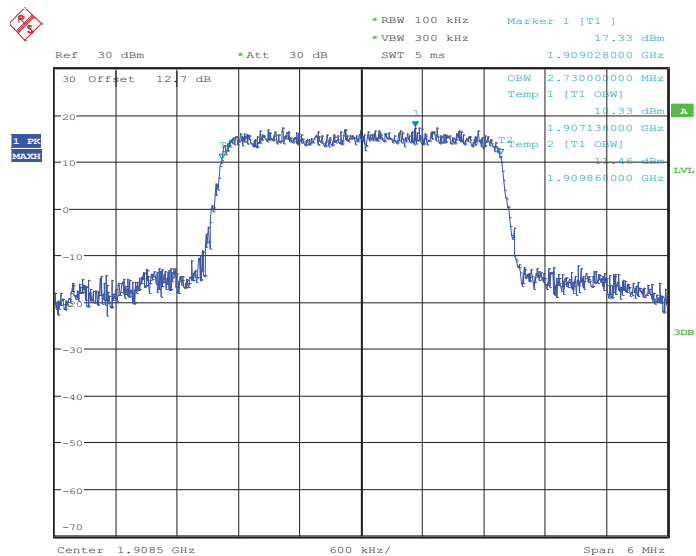
26dB Bandwidth Plot on Channel 18900



Date: 24.MAR.2014 16:02:33

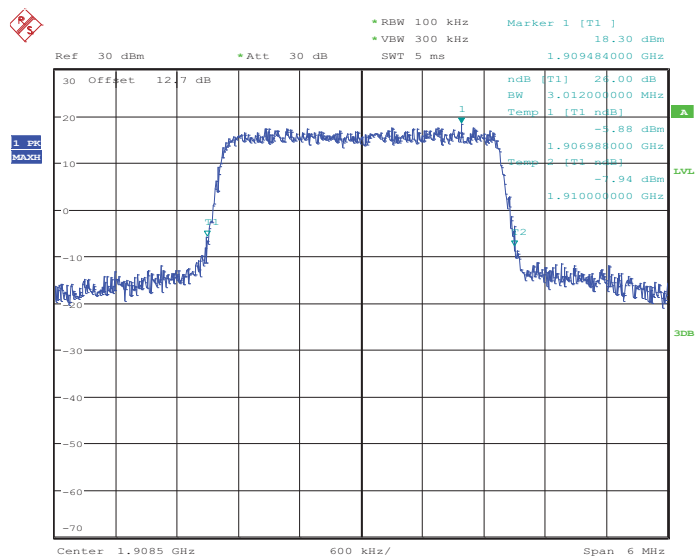


99% Occupied Bandwidth Plot on Channel 19185



Date: 24.MAR.2014 16:05:05

26dB Bandwidth Plot on Channel 19185

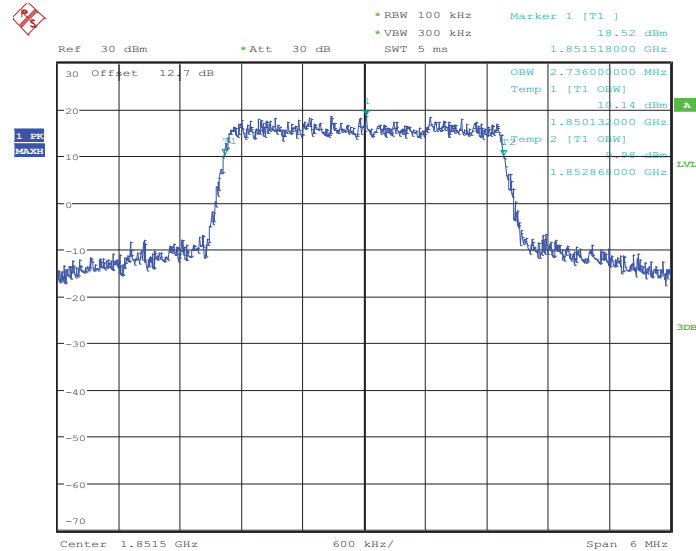


Date: 24.MAR.2014 16:05:37



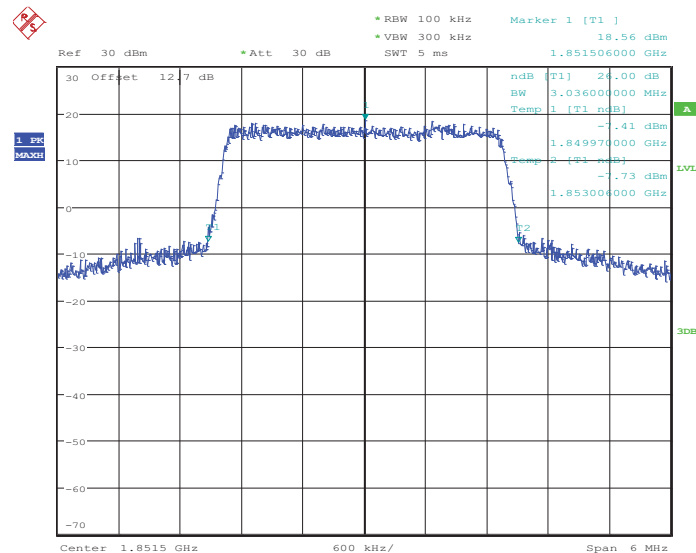
Band :	LTE Band 2	BW / Mod. :	3MHz / 16QAM
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99% Occupied Bandwidth Plot on Channel 18615



Date: 24.MAR.2014 15:56:10

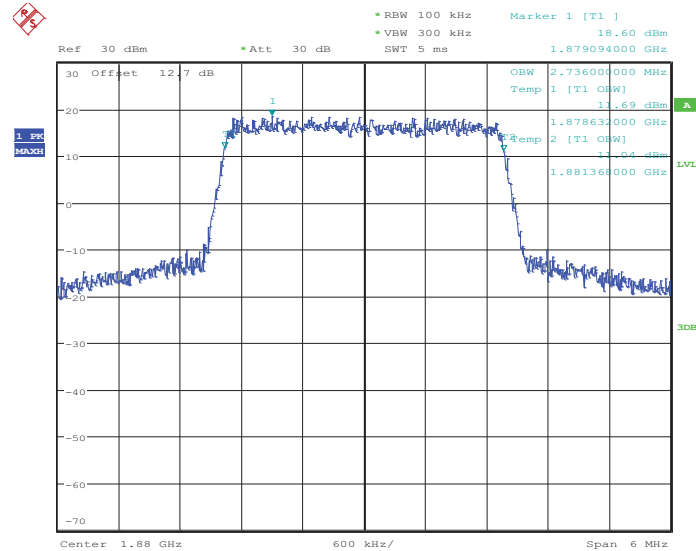
26dB Bandwidth Plot on Channel 18615



Date: 24.MAR.2014 15:56:44

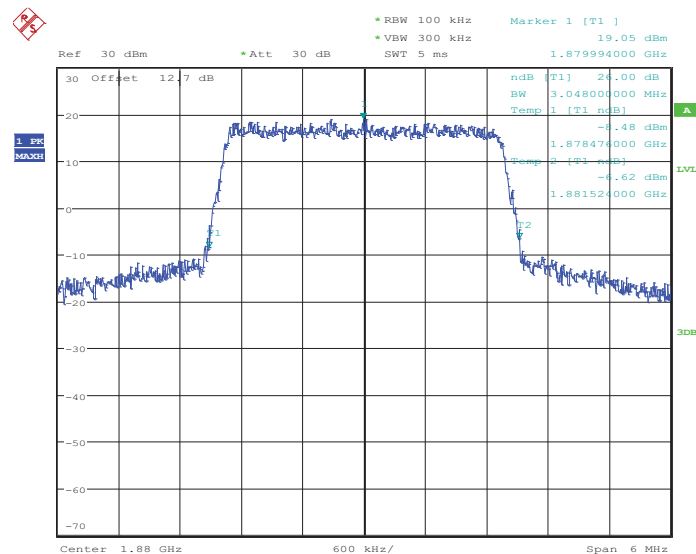


99% Occupied Bandwidth Plot on Channel 18900



Date: 24.MAR.2014 16:02:16

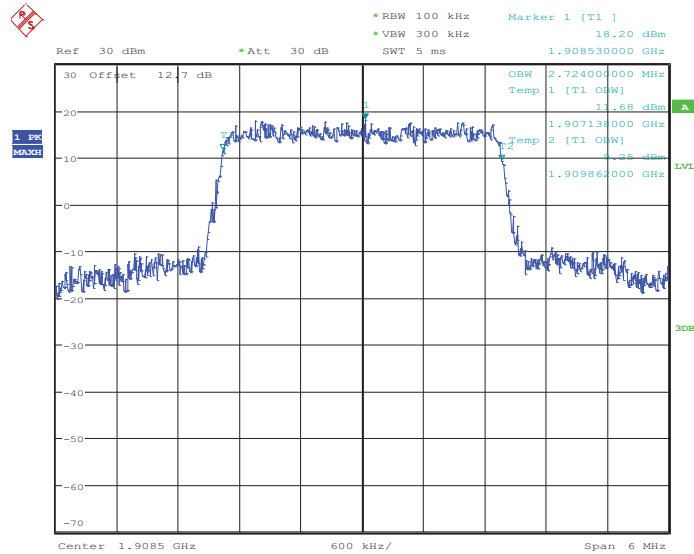
26dB Bandwidth Plot on Channel 18900



Date: 24.MAR.2014 16:02:50

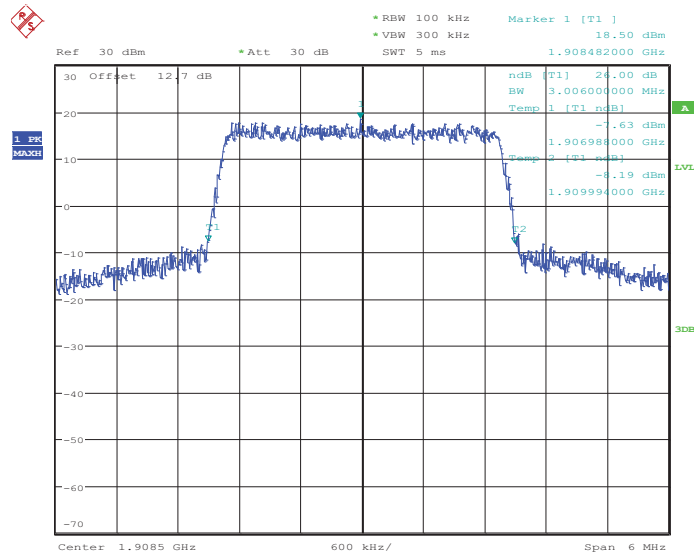


99% Occupied Bandwidth Plot on Channel 19185



Date: 24.MAR.2014 16:05:20

26dB Bandwidth Plot on Channel 19185

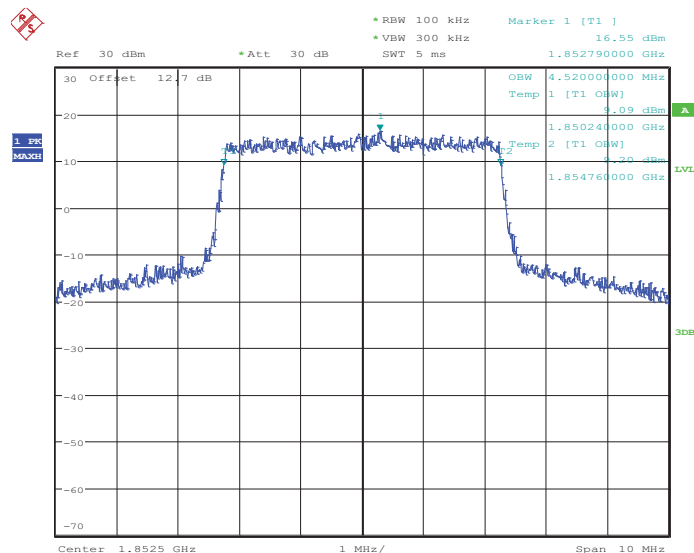


Date: 24.MAR.2014 16:05:54



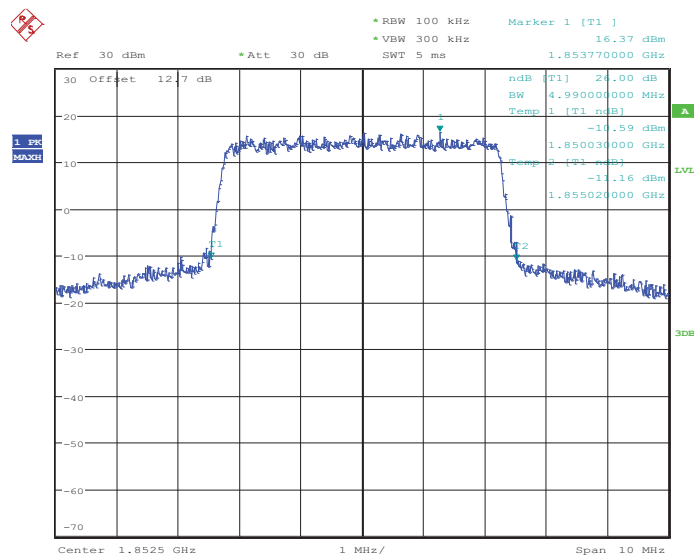
Band :	LTE Band 2	BW / Mod. :	5MHz / QPSK
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99% Occupied Bandwidth Plot on Channel 18625



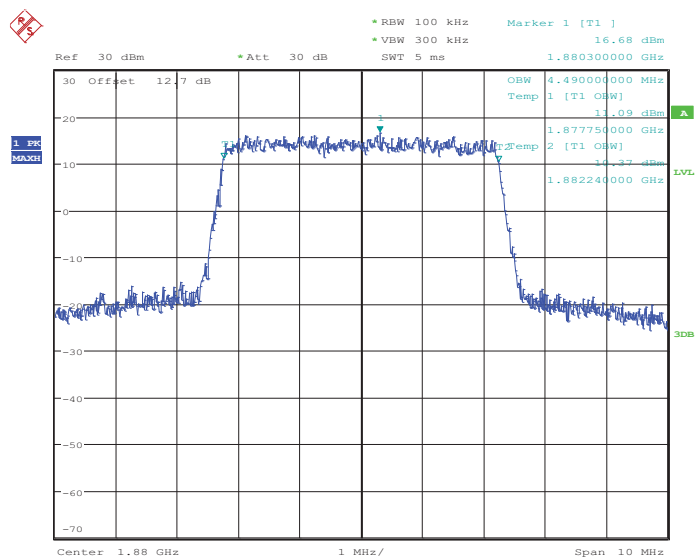
Date: 24.MAR.2014 16:19:35

26dB Bandwidth Plot on Channel 18625



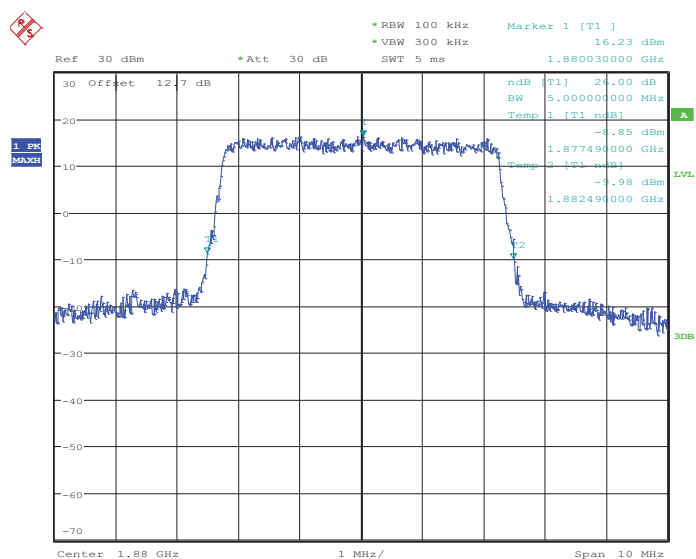
Date: 24.MAR.2014 16:20:07

99% Occupied Bandwidth Plot on Channel 18900



Date: 24.MAR.2014 16:25:43

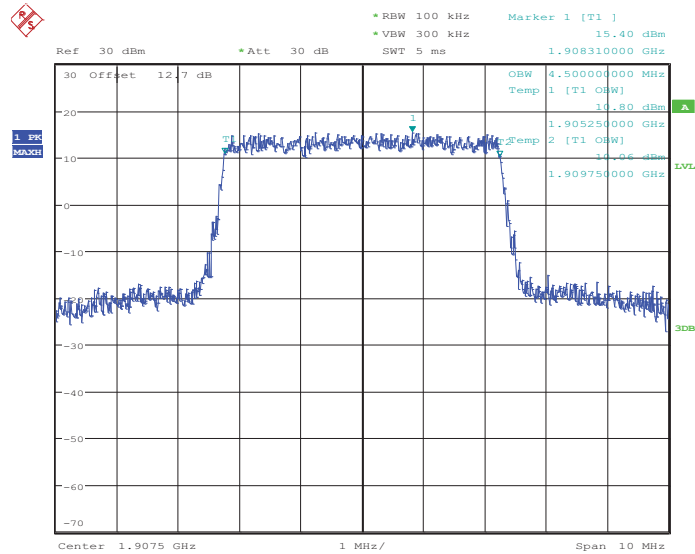
26dB Bandwidth Plot on Channel 18900



Date: 24.MAR.2014 16:26:16

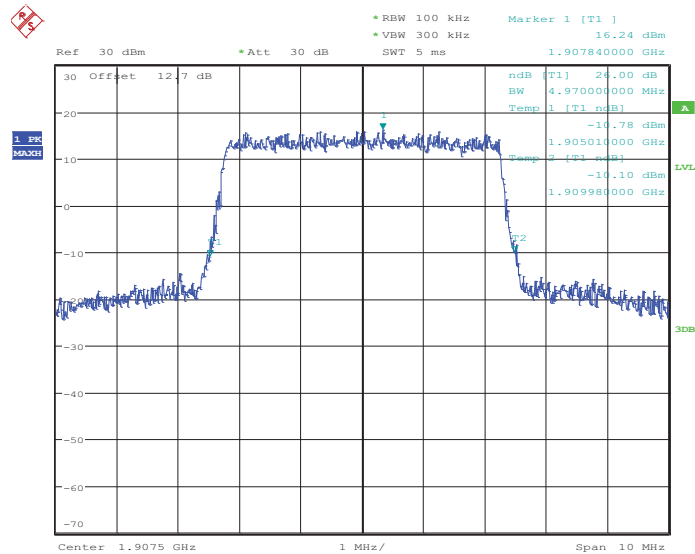


99% Occupied Bandwidth Plot on Channel 19175



Date: 24.MAR.2014 16:28:47

26dB Bandwidth Plot on Channel 19175



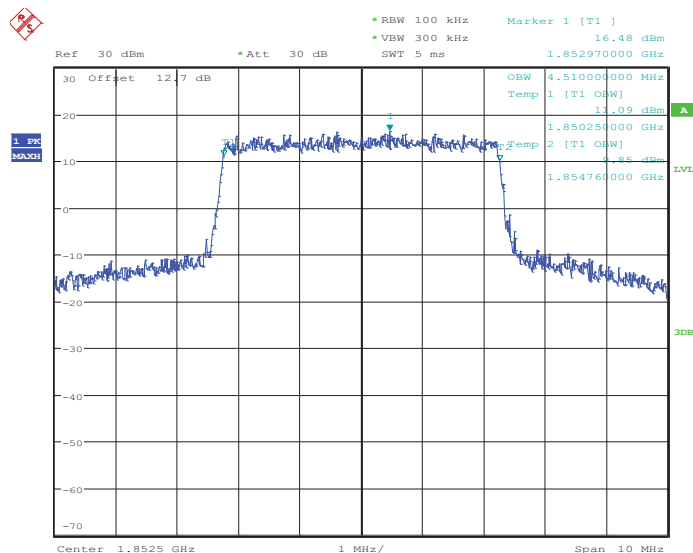
Date: 24.MAR.2014 16:29:19



Band : LTE Band 2

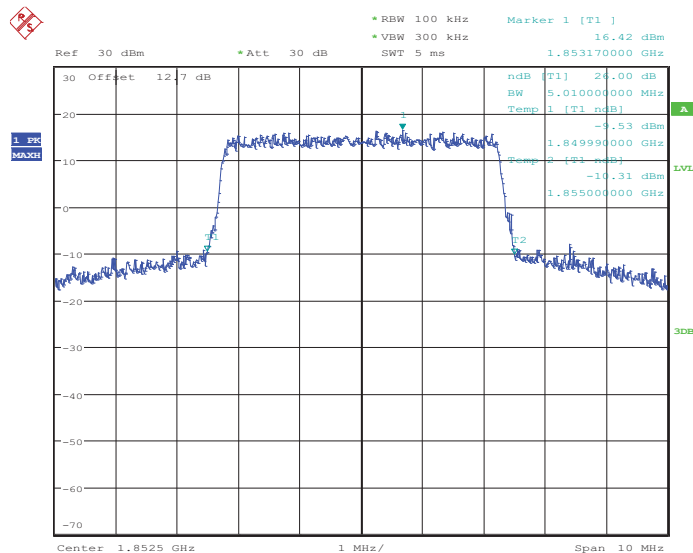
BW / Mod. : 5MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 18625



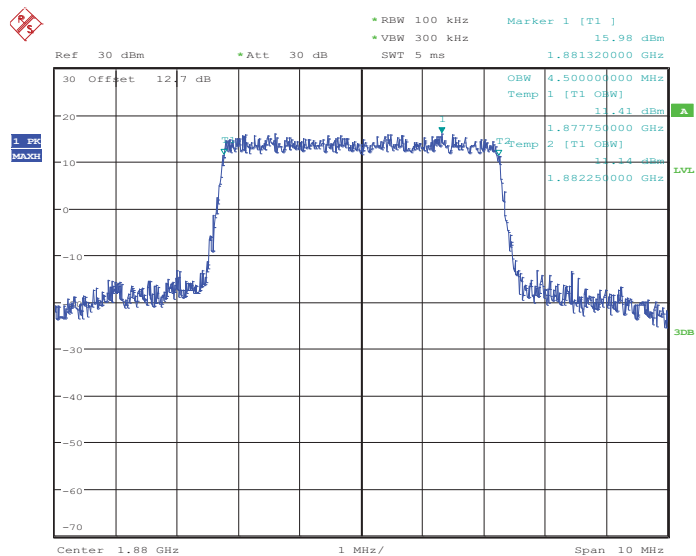
Date: 24.MAR.2014 16:19:50

26dB Bandwidth Plot on Channel 18625



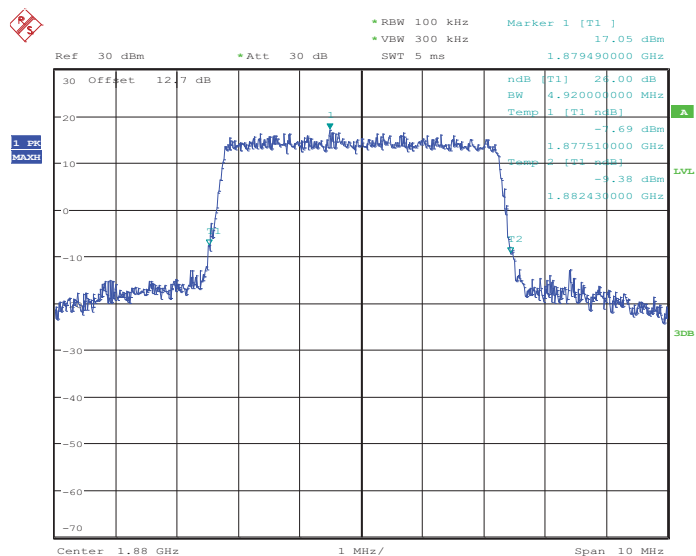
Date: 24.MAR.2014 16:20:24

99% Occupied Bandwidth Plot on Channel 18900



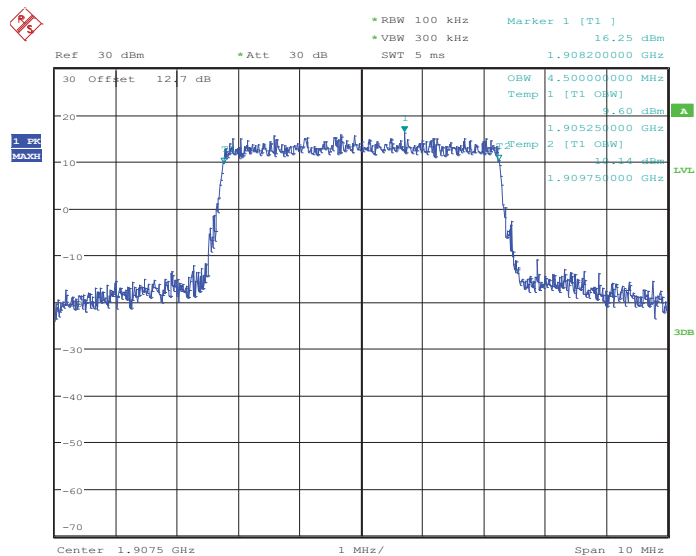
Date: 24.MAR.2014 16:25:59

26dB Bandwidth Plot on Channel 18900



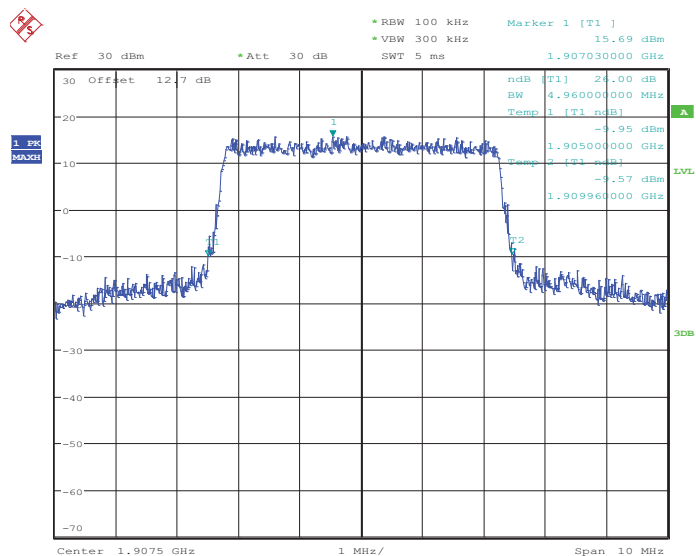
Date: 24.MAR.2014 16:26:33

99% Occupied Bandwidth Plot on Channel 19175



Date: 24.MAR.2014 16:29:02

26dB Bandwidth Plot on Channel 19175



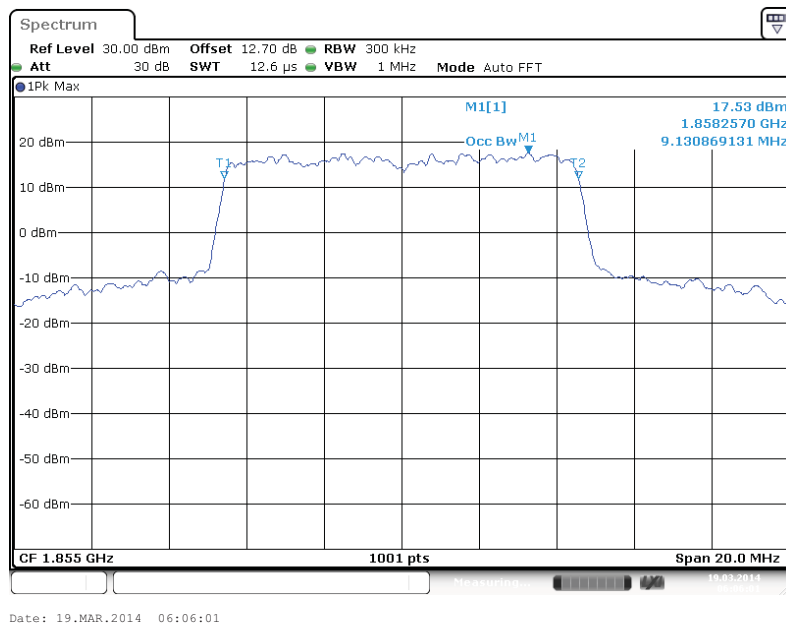
Date: 24.MAR.2014 16:29:36



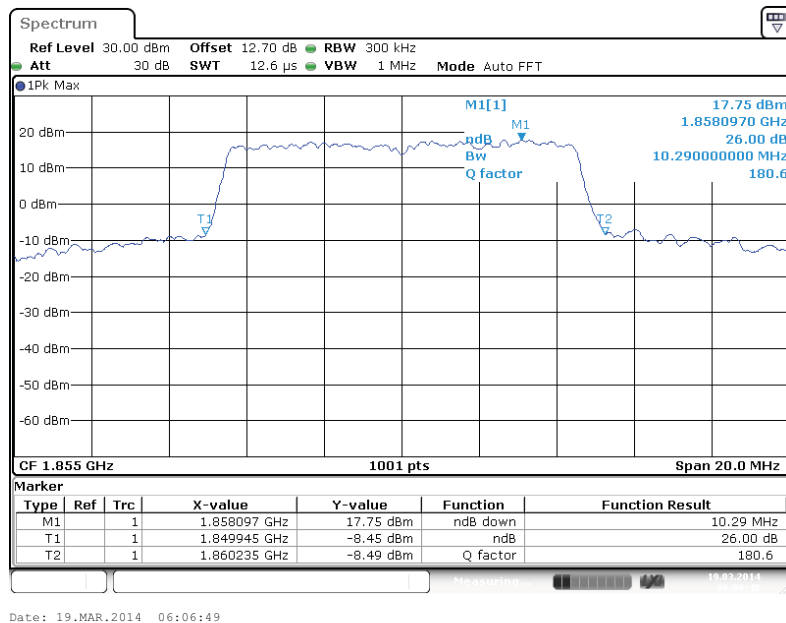
Band : LTE Band 2

BW / Mod. : 10MHz / QPSK

99% Occupied Bandwidth Plot on Channel 18650

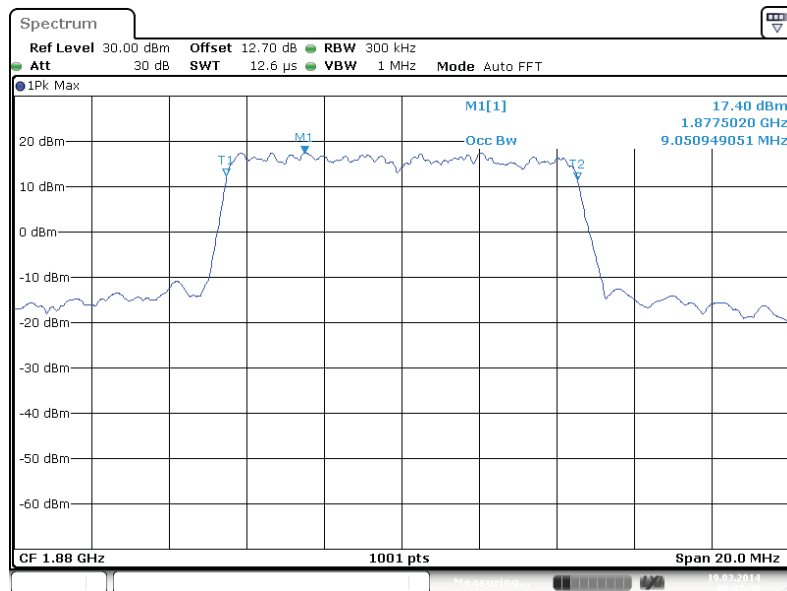


26dB Bandwidth Plot on Channel 18650

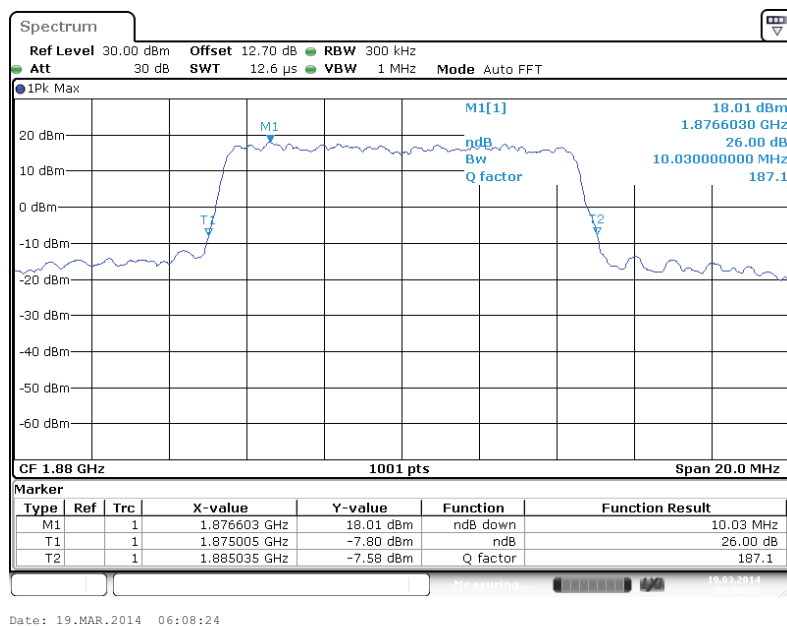




99% Occupied Bandwidth Plot on Channel 18900

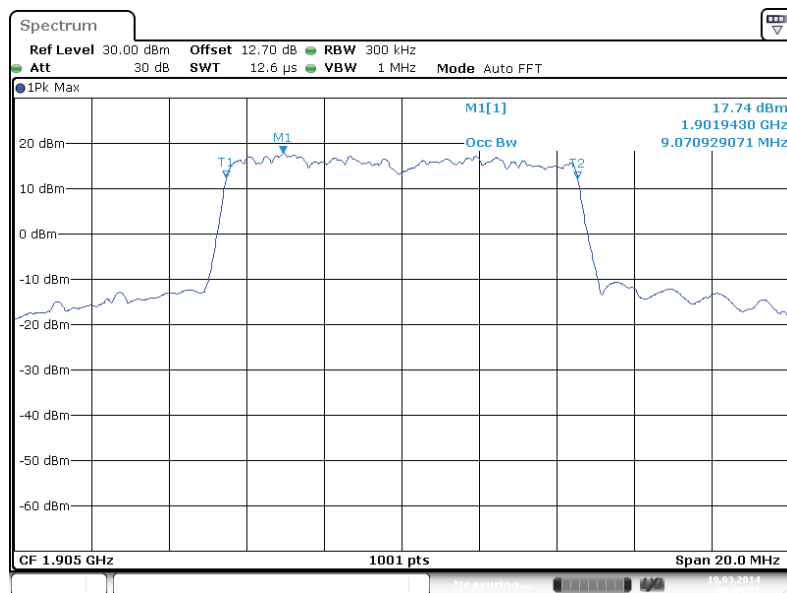


26dB Bandwidth Plot on Channel 18900

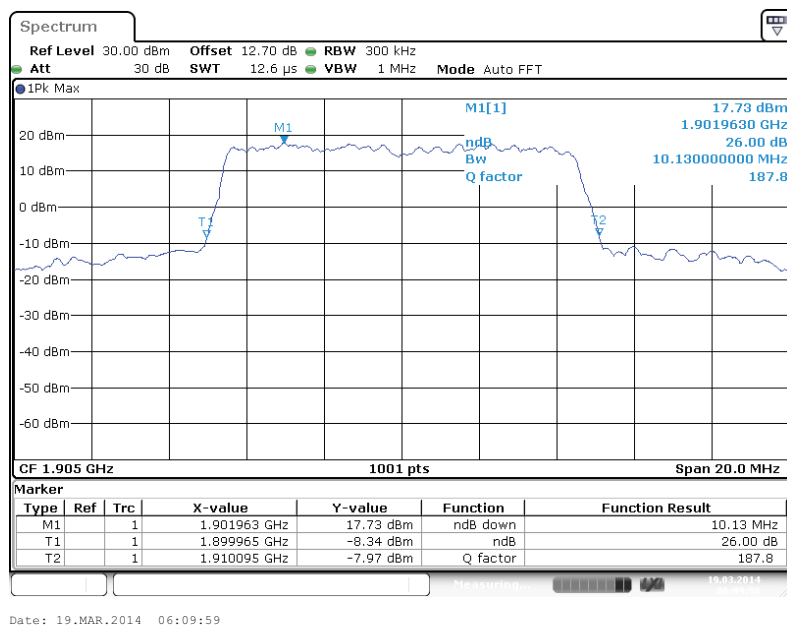




99% Occupied Bandwidth Plot on Channel 19150



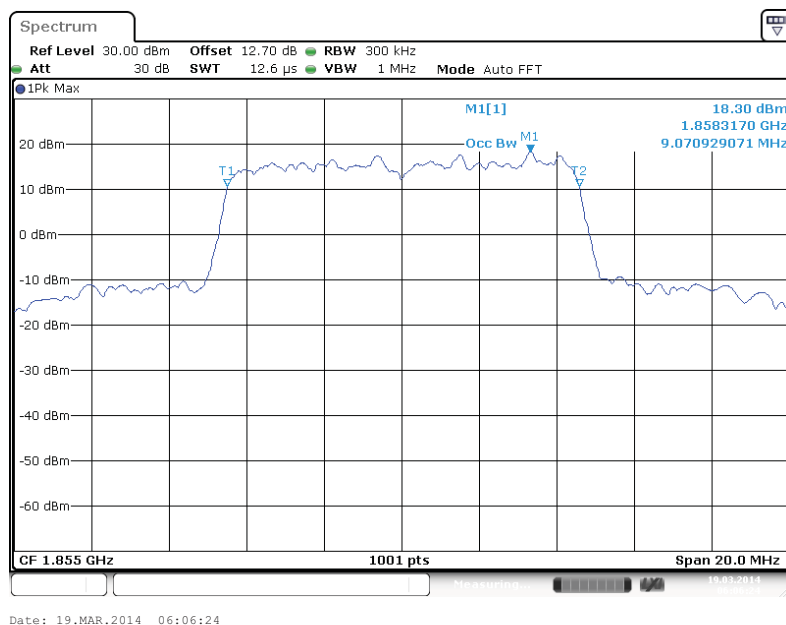
26dB Bandwidth Plot on Channel 19150



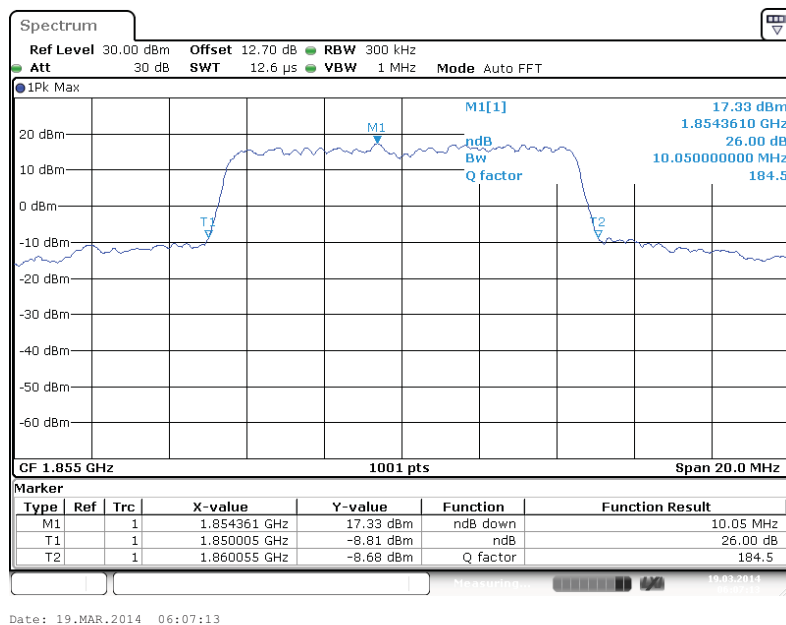


Band :	LTE Band 2	BW / Mod. :	10MHz / 16QAM
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99% Occupied Bandwidth Plot on Channel 18650

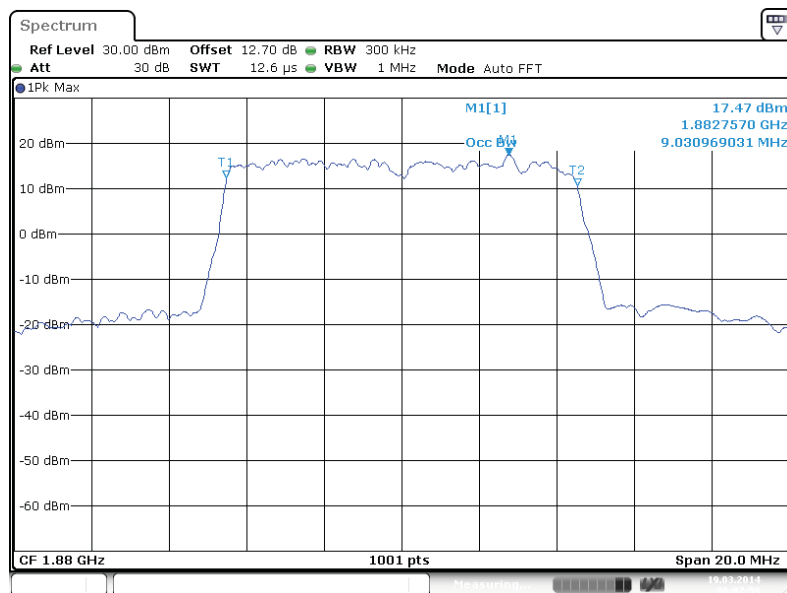


26dB Bandwidth Plot on Channel 18650

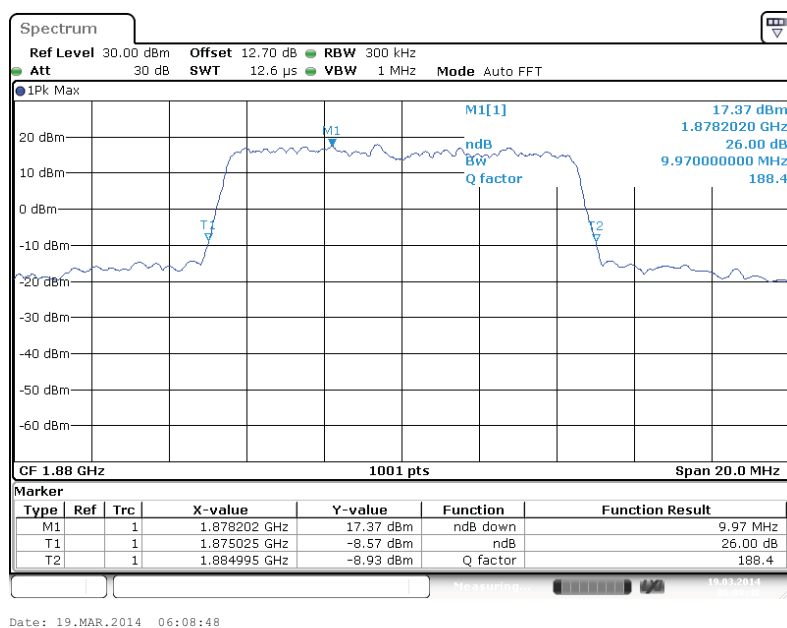




99% Occupied Bandwidth Plot on Channel 18900

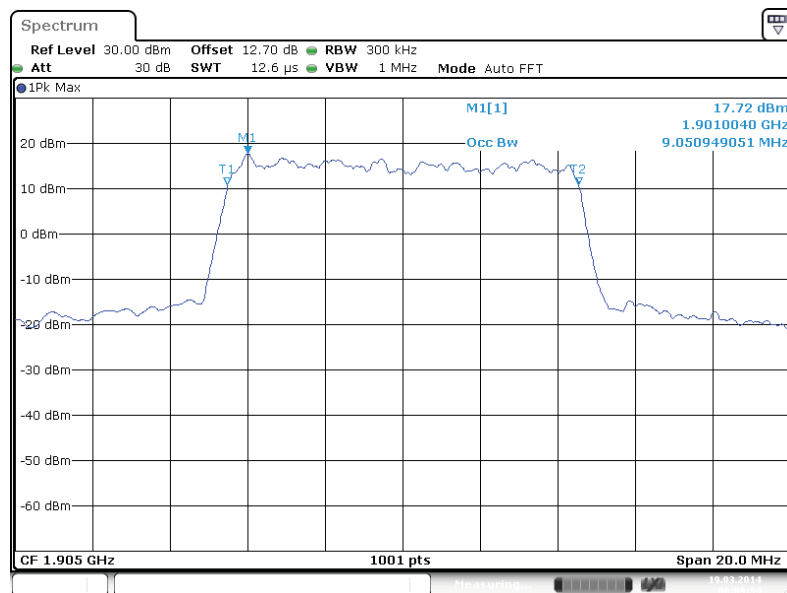


26dB Bandwidth Plot on Channel 18900

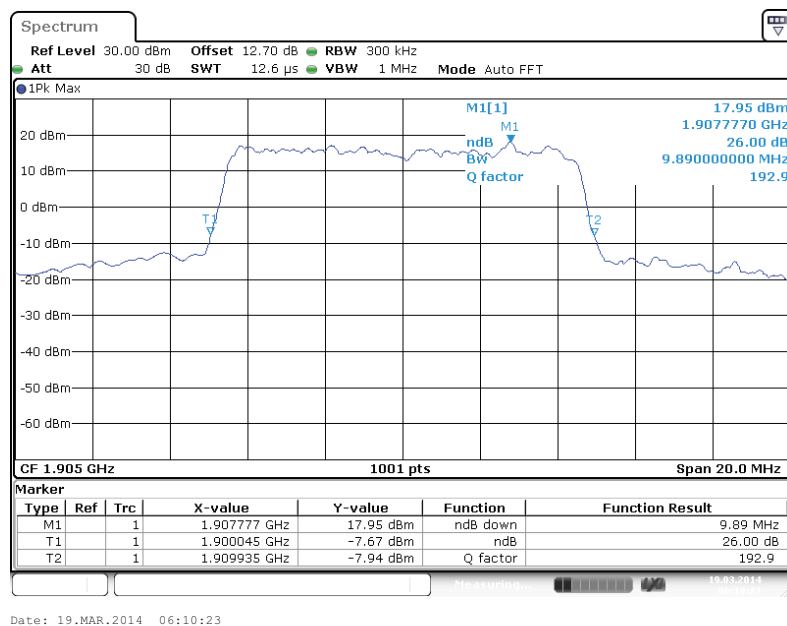




99% Occupied Bandwidth Plot on Channel 19150



26dB Bandwidth Plot on Channel 19150

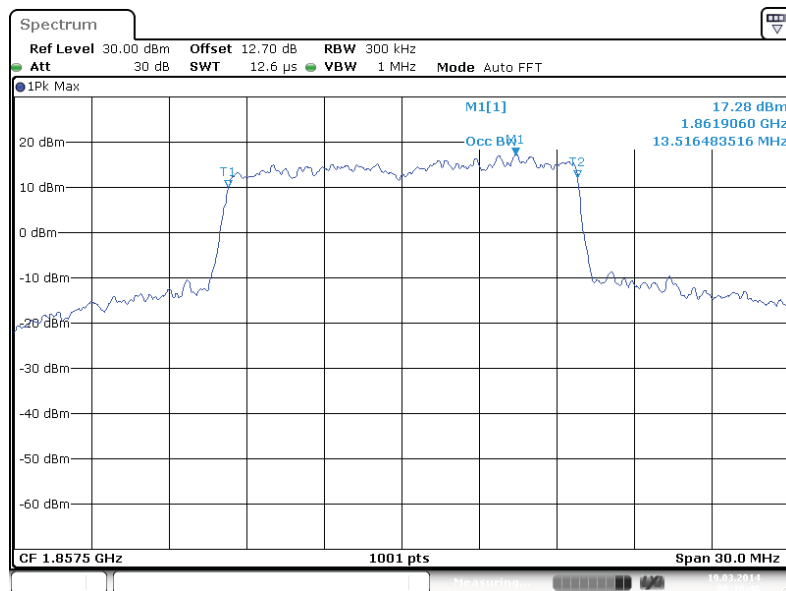




Band : LTE Band 2

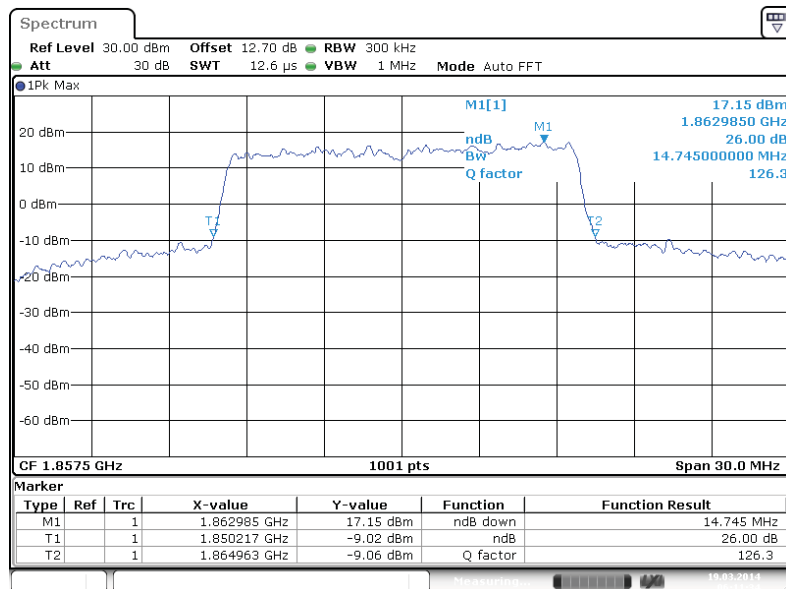
BW / Mod. : 15MHz / QPSK

99% Occupied Bandwidth Plot on Channel 18675



Date: 19.MAR.2014 06:10:46

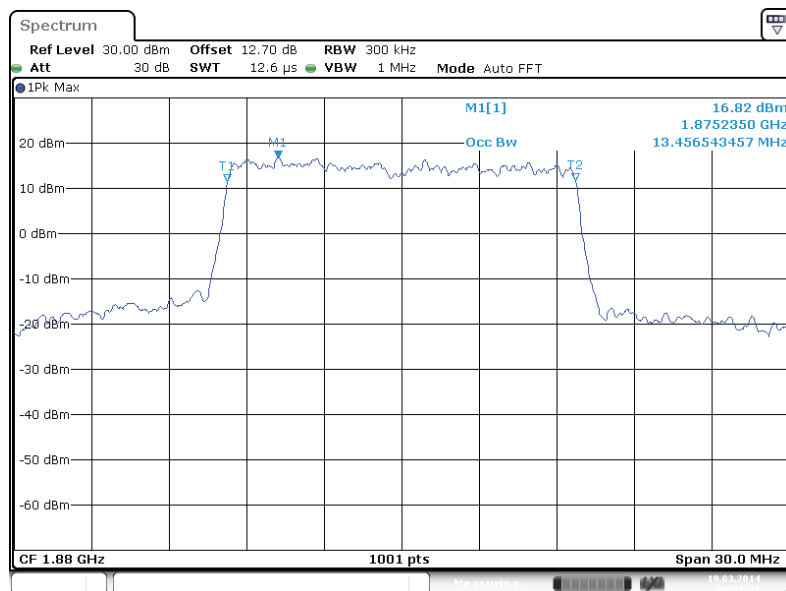
26dB Bandwidth Plot on Channel 18675



Date: 19.MAR.2014 06:11:34

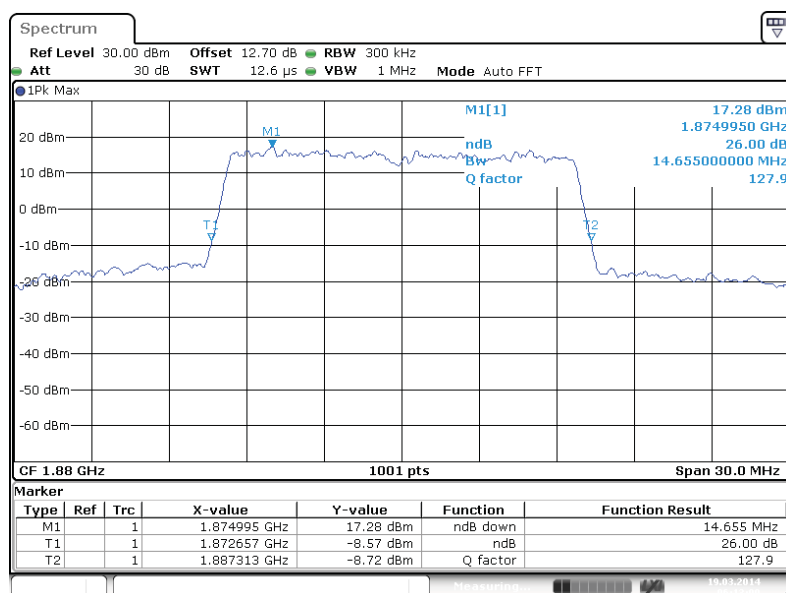


99% Occupied Bandwidth Plot on Channel 18900



Date: 19.MAR.2014 06:12:21

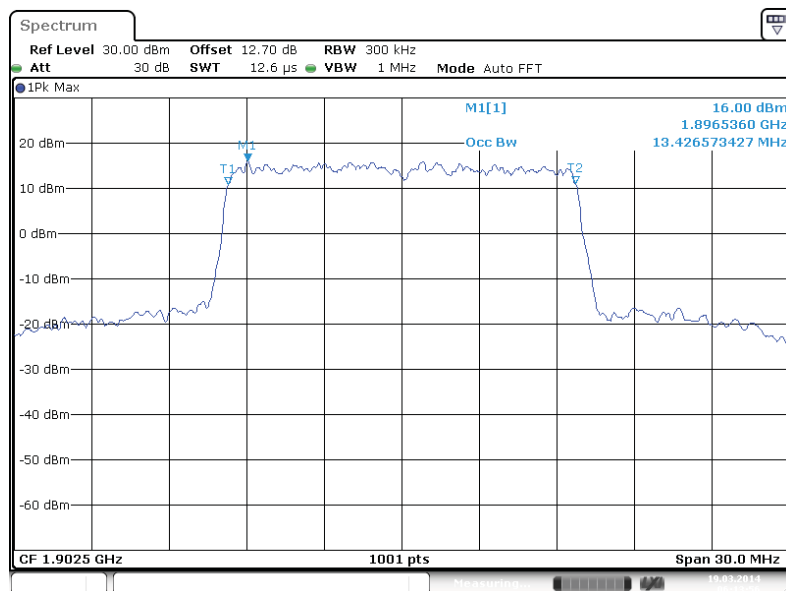
26dB Bandwidth Plot on Channel 18900



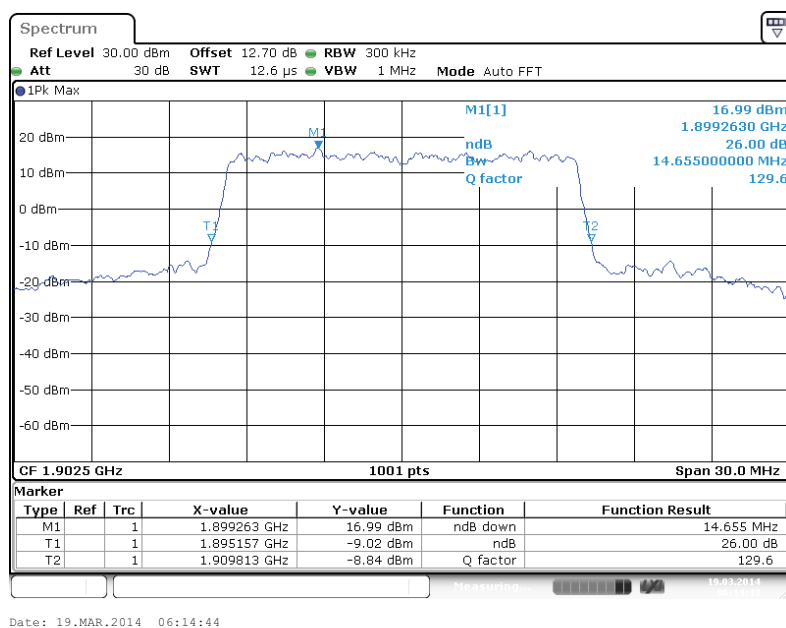
Date: 19.MAR.2014 06:13:09



99% Occupied Bandwidth Plot on Channel 19125



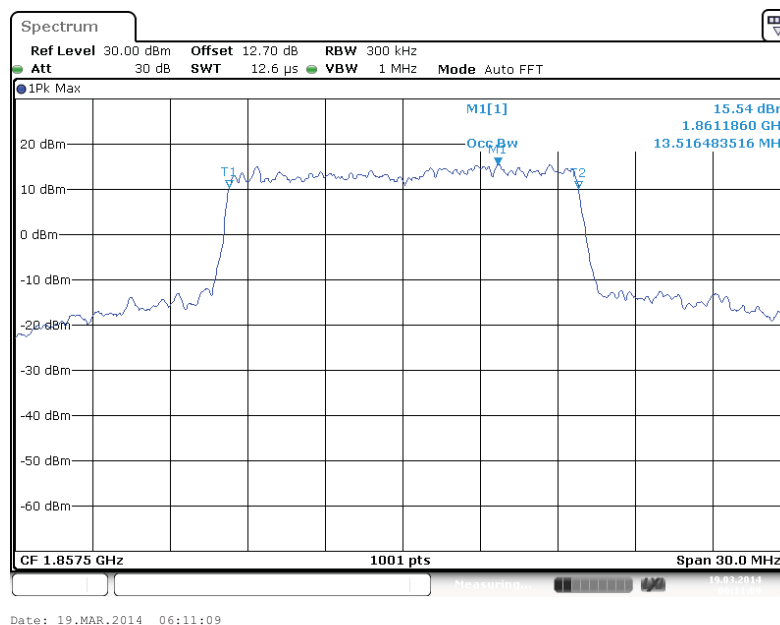
26dB Bandwidth Plot on Channel 19125



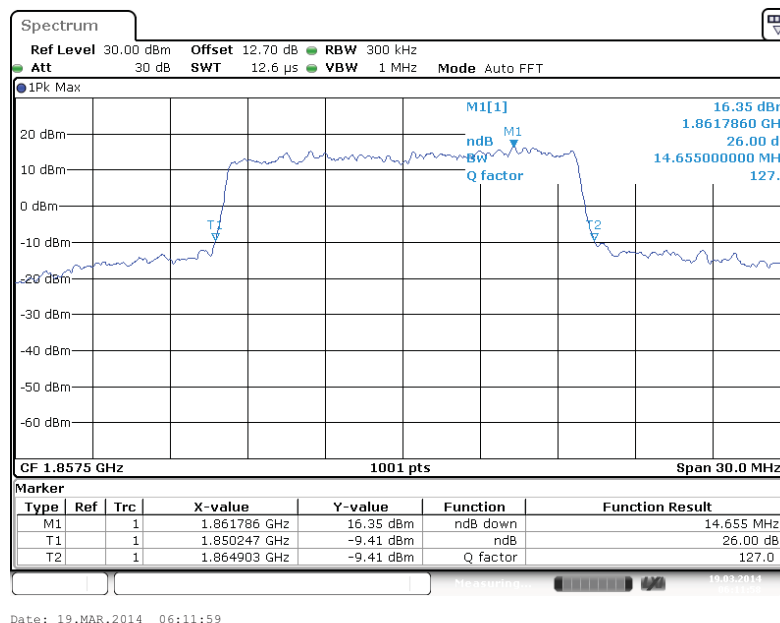


Band :	LTE Band 2	BW / Mod. :	15MHz / 16QAM
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99% Occupied Bandwidth Plot on Channel 18675

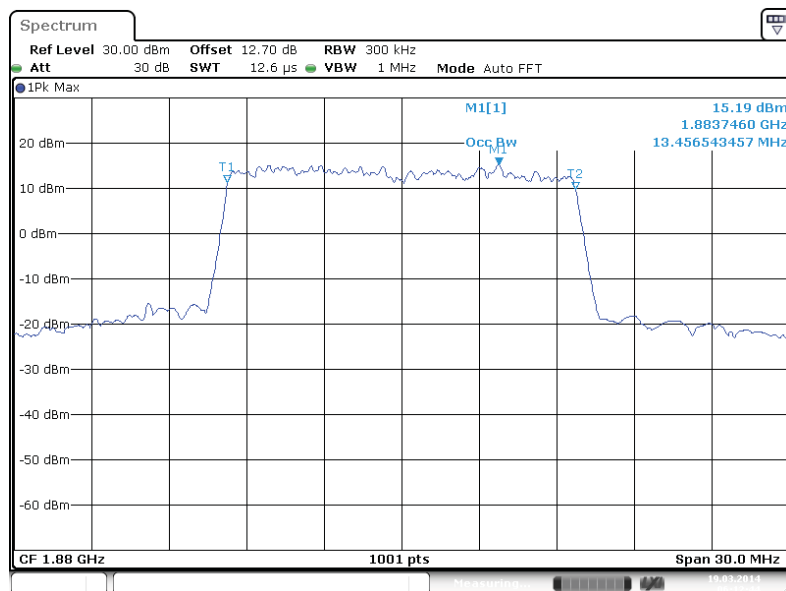


26dB Bandwidth Plot on Channel 18675



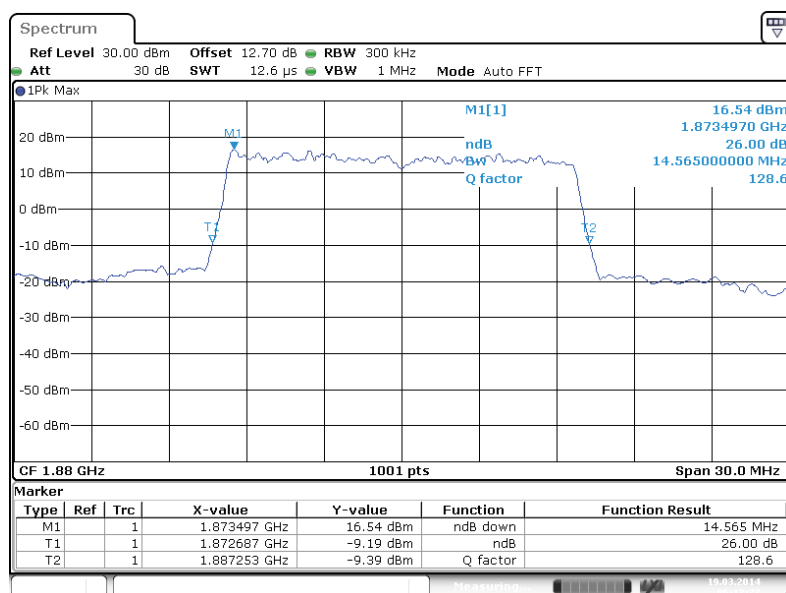


99% Occupied Bandwidth Plot on Channel 18900



Date: 19.MAR.2014 06:12:44

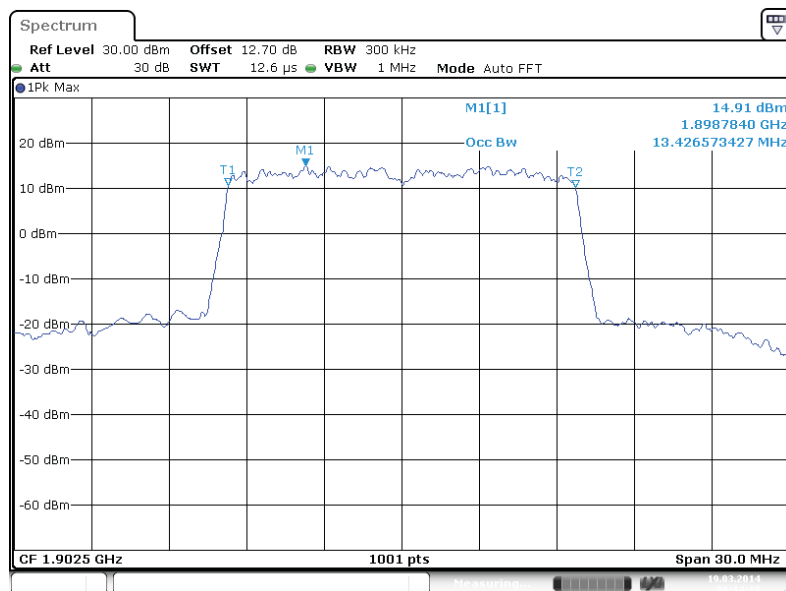
26dB Bandwidth Plot on Channel 18900



Date: 19.MAR.2014 06:13:34

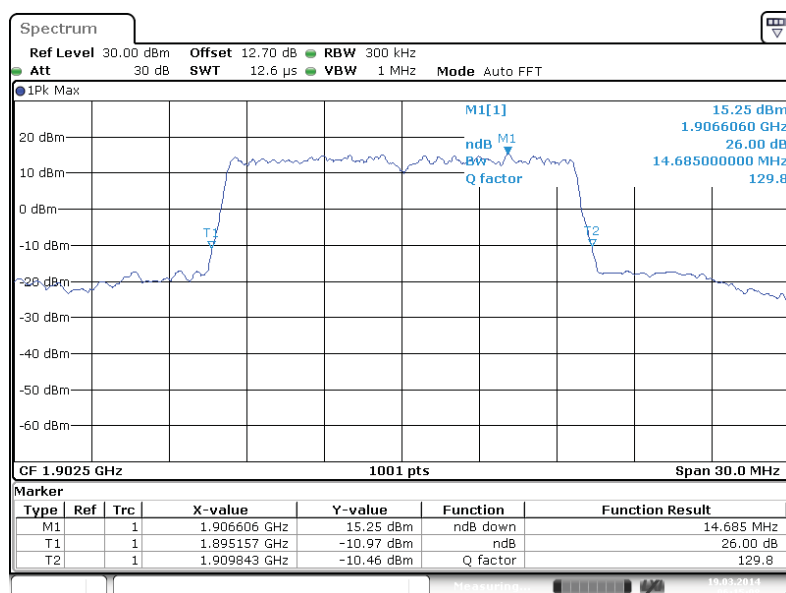


99% Occupied Bandwidth Plot on Channel 19125



Date: 19.MAR.2014 06:14:19

26dB Bandwidth Plot on Channel 19125



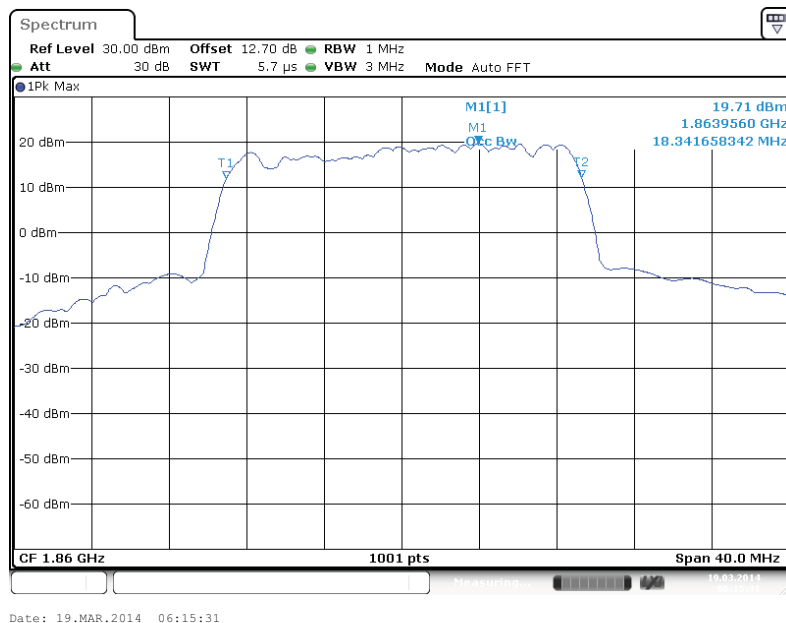
Date: 19.MAR.2014 06:15:08



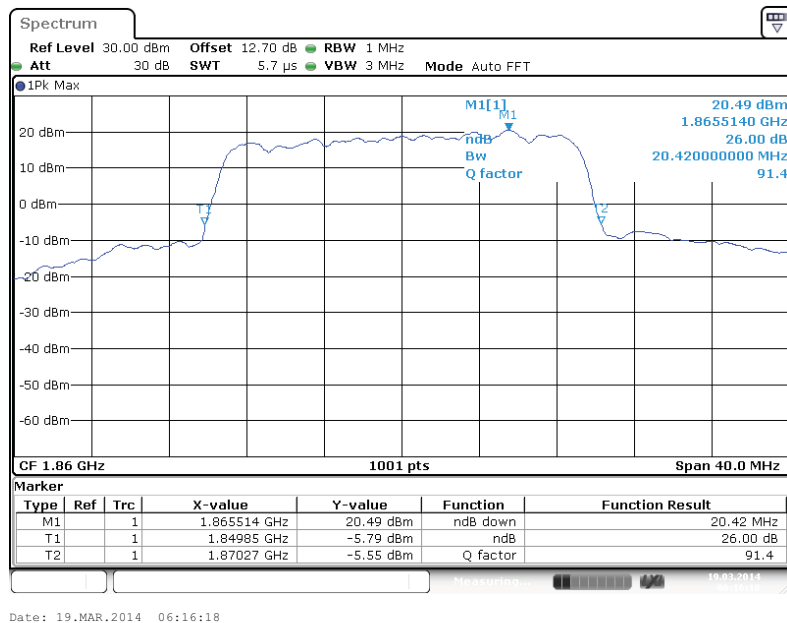
Band : LTE Band 2

BW / Mod. : 20MHz / QPSK

99% Occupied Bandwidth Plot on Channel 18700

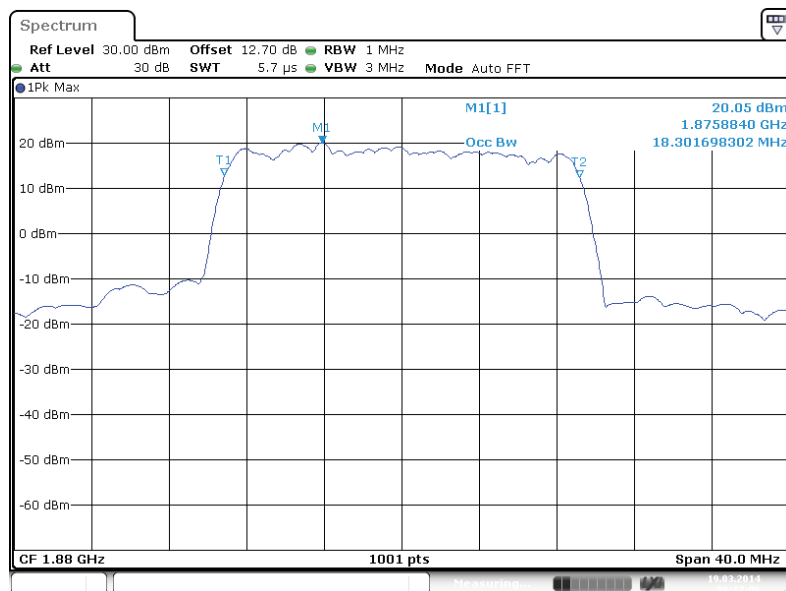


26dB Bandwidth Plot on Channel 18700

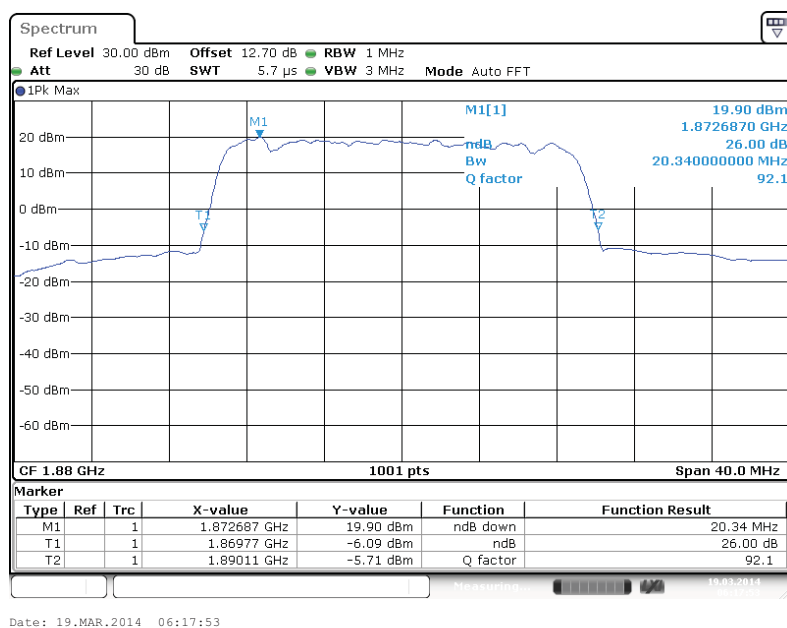




99% Occupied Bandwidth Plot on Channel 18900

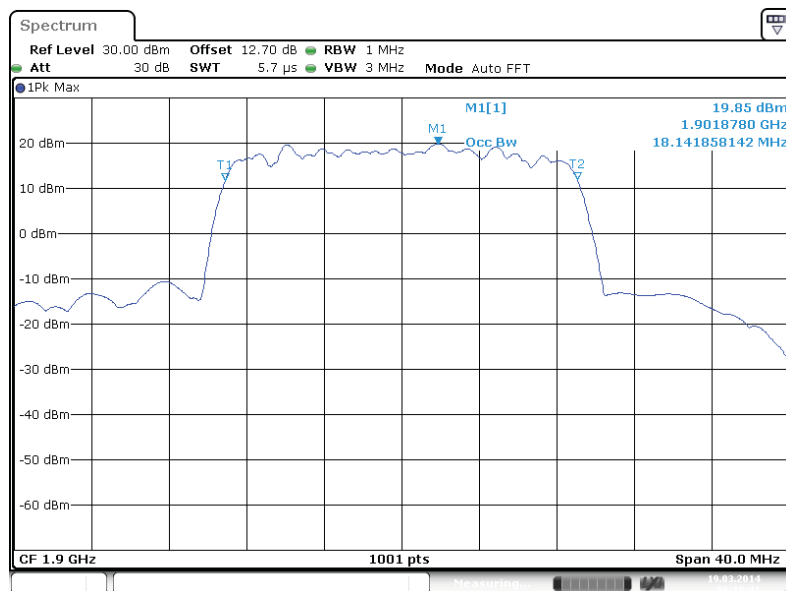


26dB Bandwidth Plot on Channel 18900



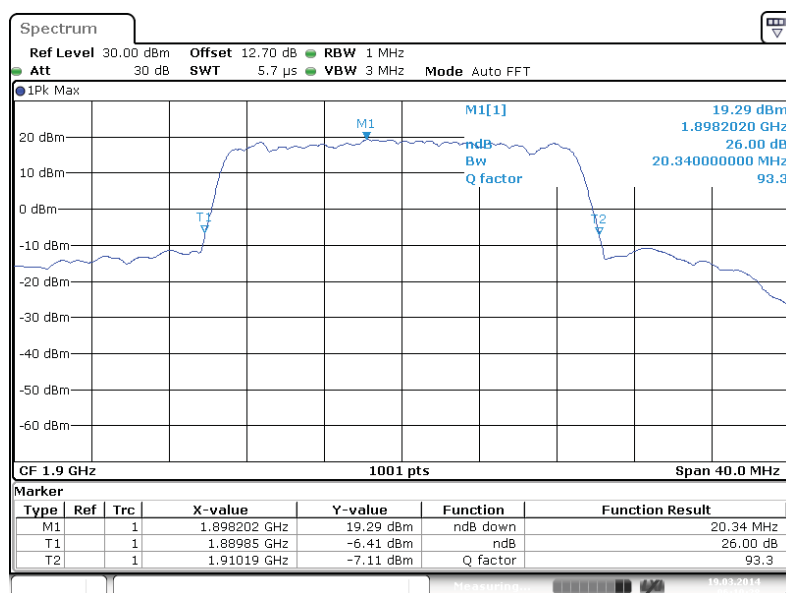


99% Occupied Bandwidth Plot on Channel 19100



Date: 19.MAR.2014 06:18:41

26dB Bandwidth Plot on Channel 19100



Date: 19.MAR.2014 06:19:28



Band : LTE Band 2

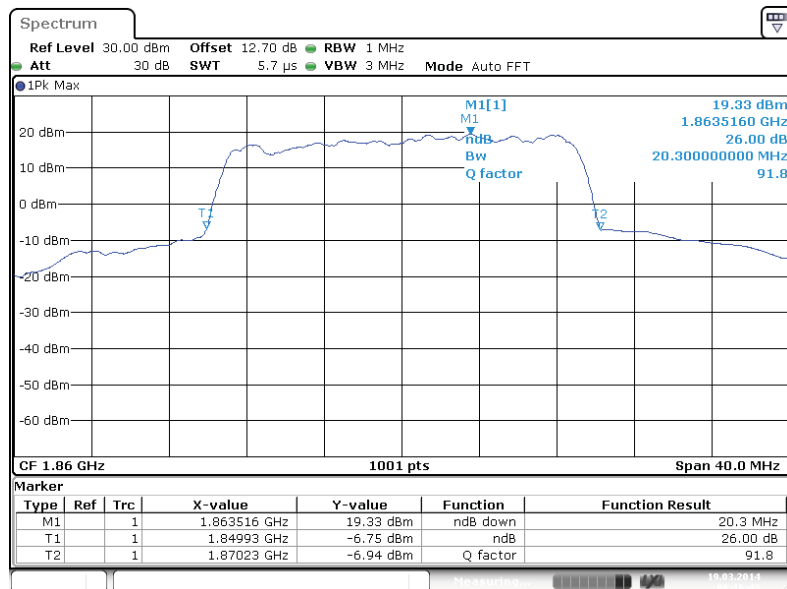
BW / Mod. : 20MHz / 16QAM

99% Occupied Bandwidth Plot on Channel 18700



Date: 19.MAR.2014 06:15:54

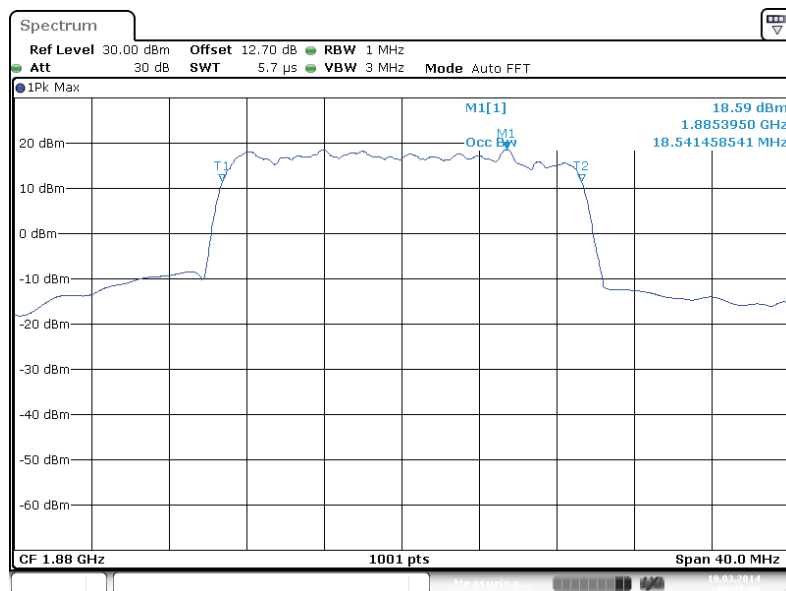
26dB Bandwidth Plot on Channel 18700



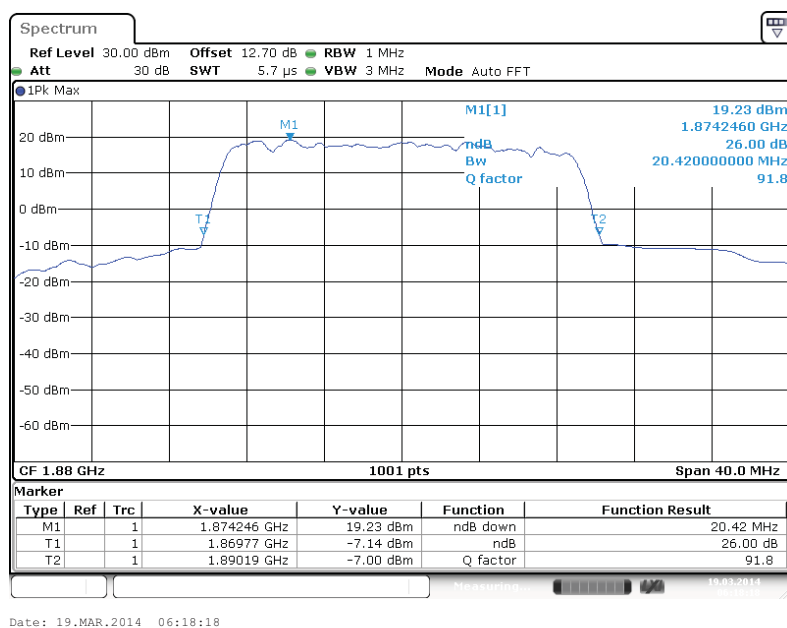
Date: 19.MAR.2014 06:16:43



99% Occupied Bandwidth Plot on Channel 18900

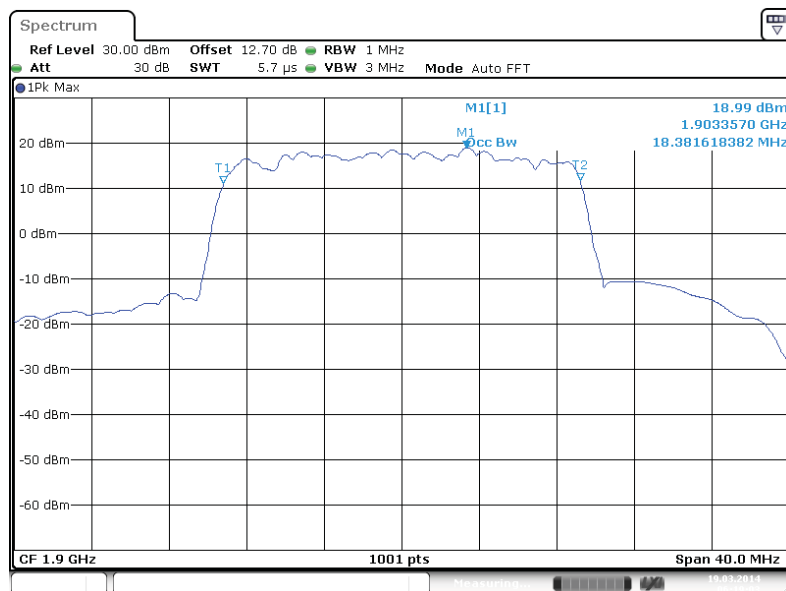


26dB Bandwidth Plot on Channel 18900



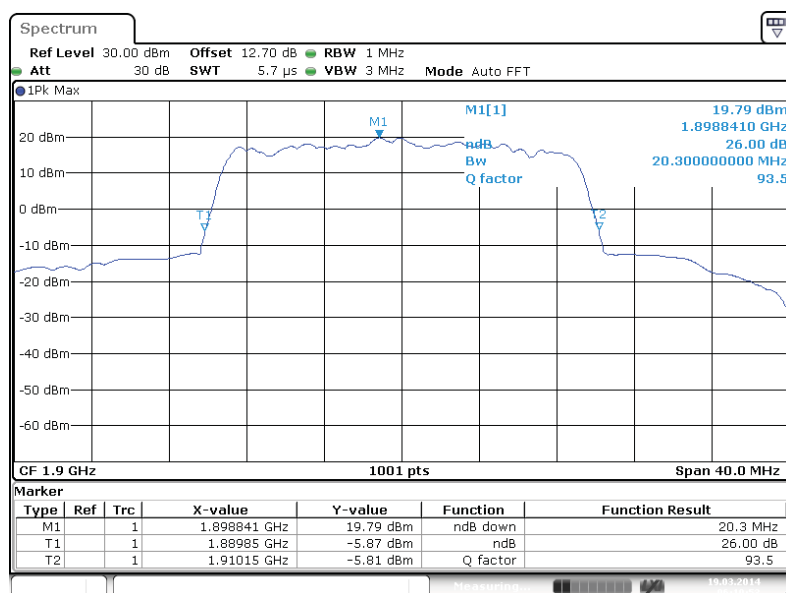


99% Occupied Bandwidth Plot on Channel 19100



Date: 19.MAR.2014 06:19:04

26dB Bandwidth Plot on Channel 19100



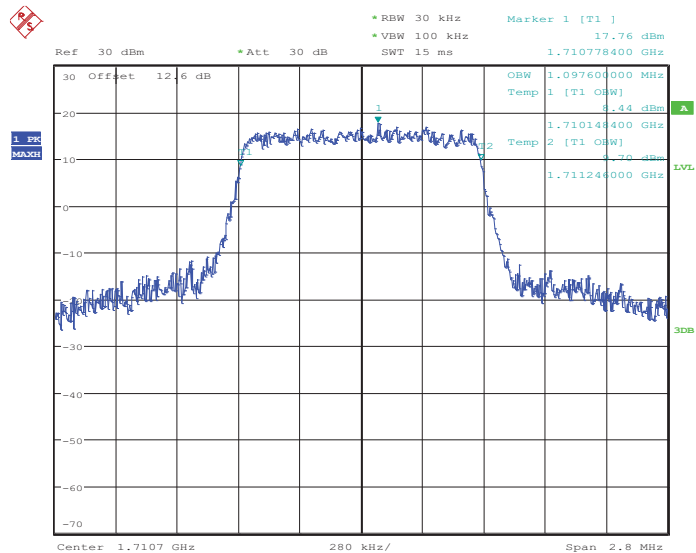
Date: 19.MAR.2014 06:19:53

Note: The total loss is 12.7 dB of the RF cable and attenuator of LTE Band 2,
and has been compensated to the spectrum analyzer offset.



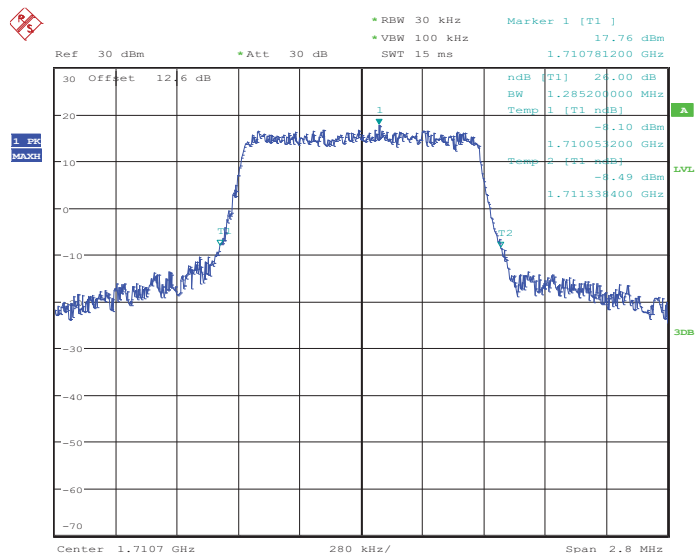
Band :	LTE Band 4	BW / Mod. :	1.4MHz / QPSK
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99% Occupied Bandwidth Plot on Channel 19957



Date: 17.DEC.2013 20:03:39

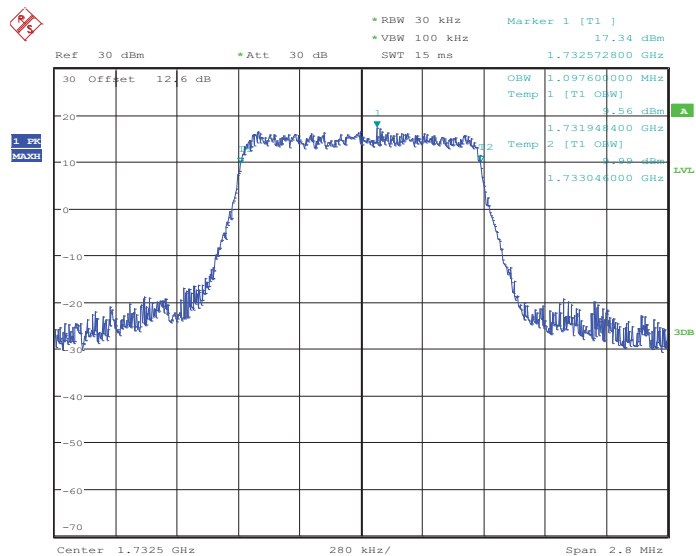
26dB Bandwidth Plot on Channel 19957



Date: 17.DEC.2013 20:03:53

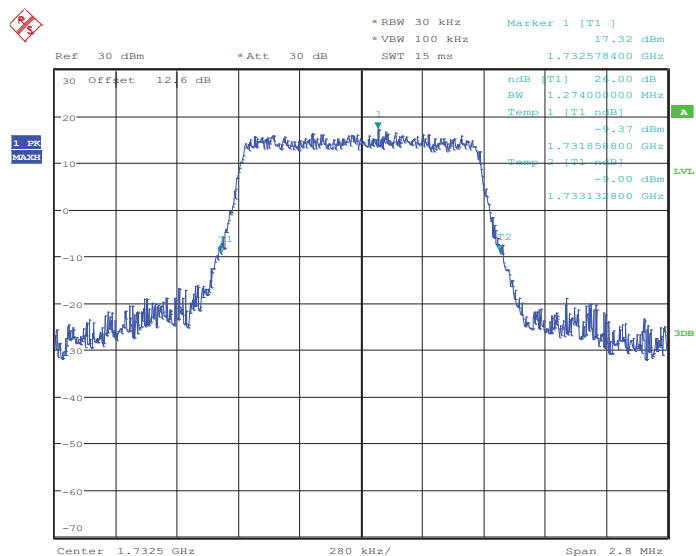


99% Occupied Bandwidth Plot on Channel 20175



Date: 17.DEC.2013 20:06:37

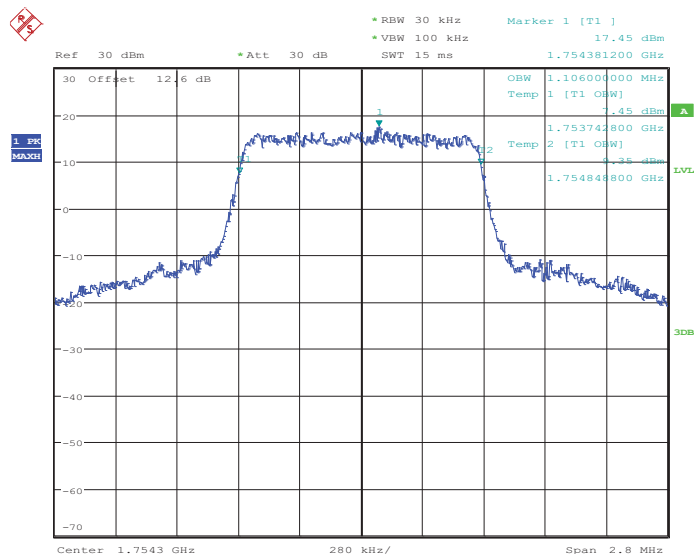
26dB Bandwidth Plot on Channel 20175



Date: 17.DEC.2013 20:06:46

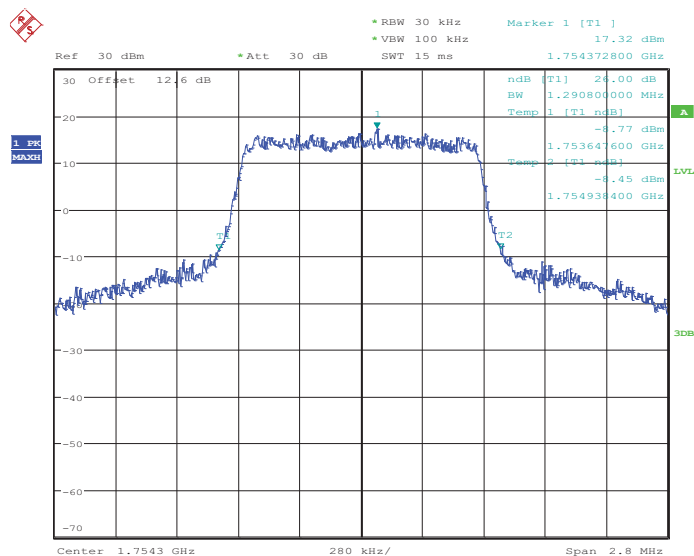


99% Occupied Bandwidth Plot on Channel 20393



Date: 17.DEC.2013 20:09:20

26dB Bandwidth Plot on Channel 20393

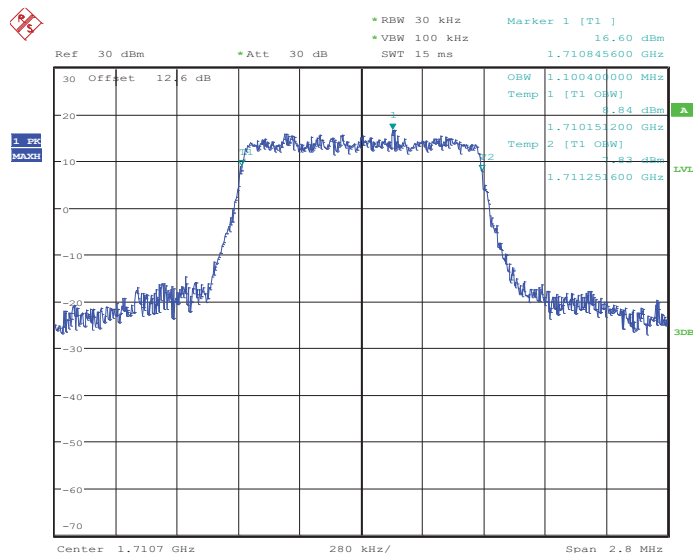


Date: 17.DEC.2013 20:09:07



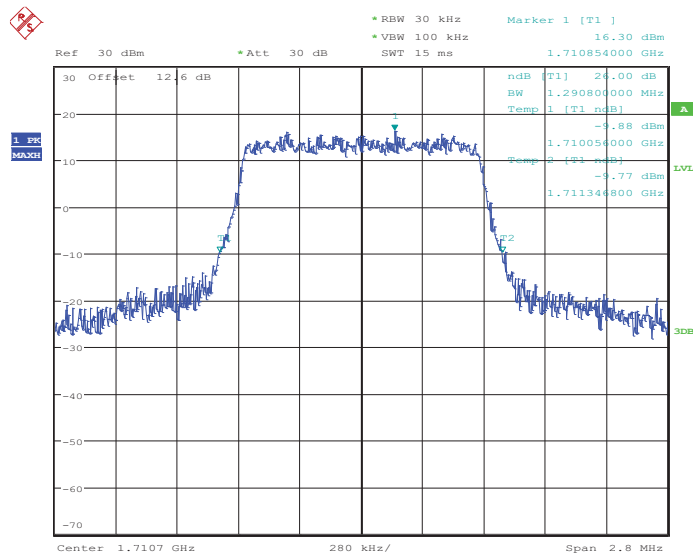
Band :	LTE Band 4	BW / Mod. :	1.4MHz / 16QAM
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99% Occupied Bandwidth Plot on Channel 1957



Date: 17.DEC.2013 20:05:17

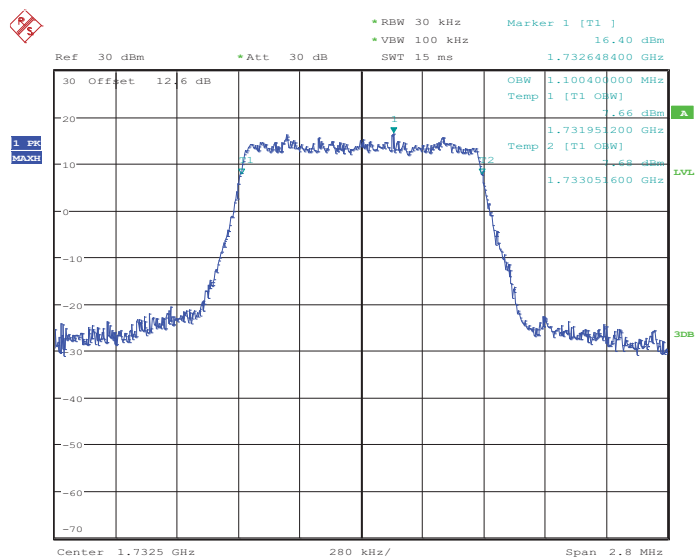
26dB Bandwidth Plot on Channel 1957



Date: 17.DEC.2013 20:05:06

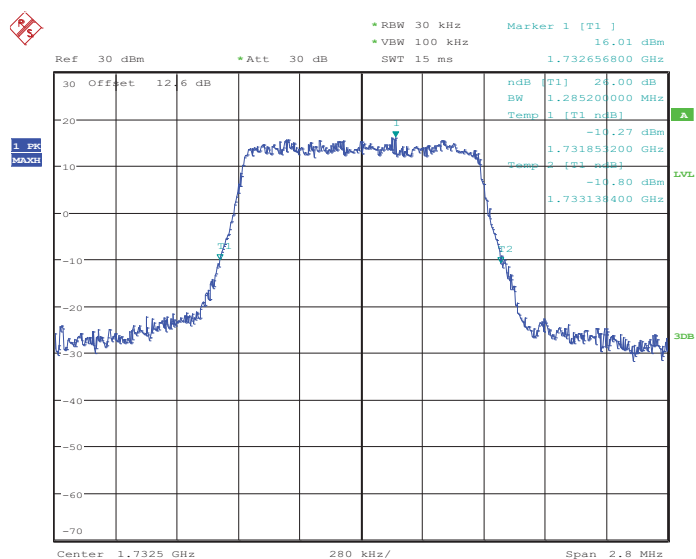


99% Occupied Bandwidth Plot on Channel 20175



Date: 17.DEC.2013 20:07:00

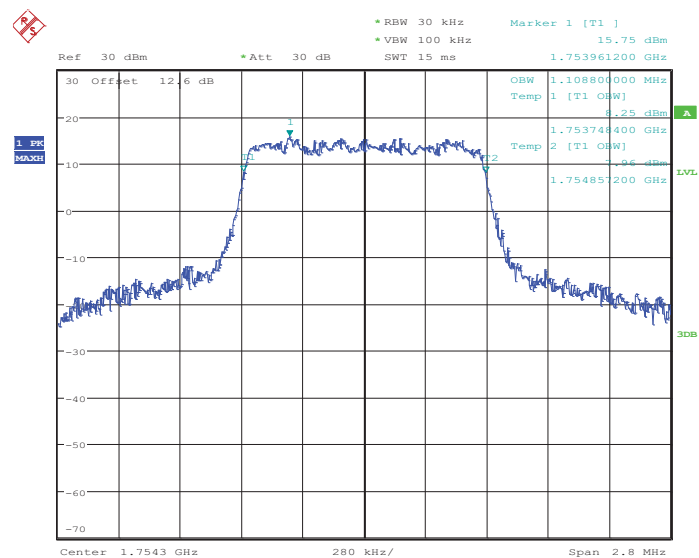
26dB Bandwidth Plot on Channel 20175



Date: 17.DEC.2013 20:07:12

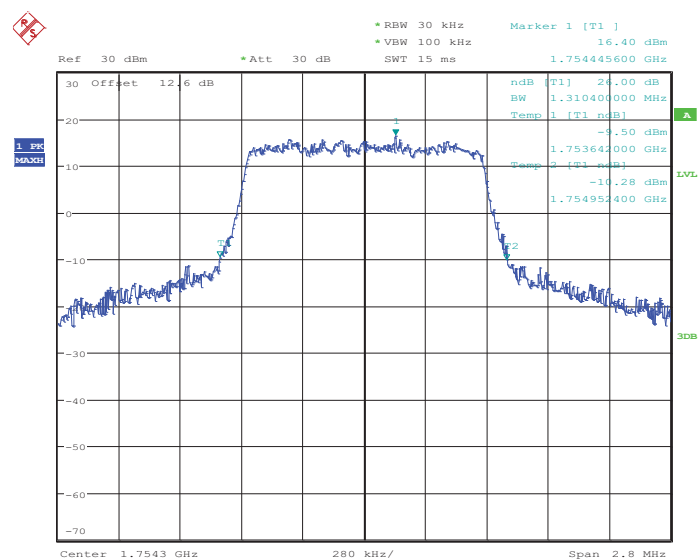


99% Occupied Bandwidth Plot on Channel 20393



Date: 17.DEC.2013 20:07:30

26dB Bandwidth Plot on Channel 20393

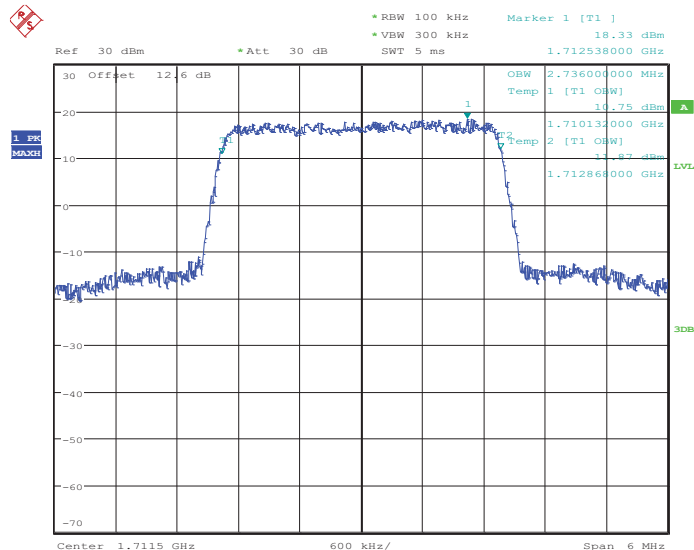


Date: 17.DEC.2013 20:07:47



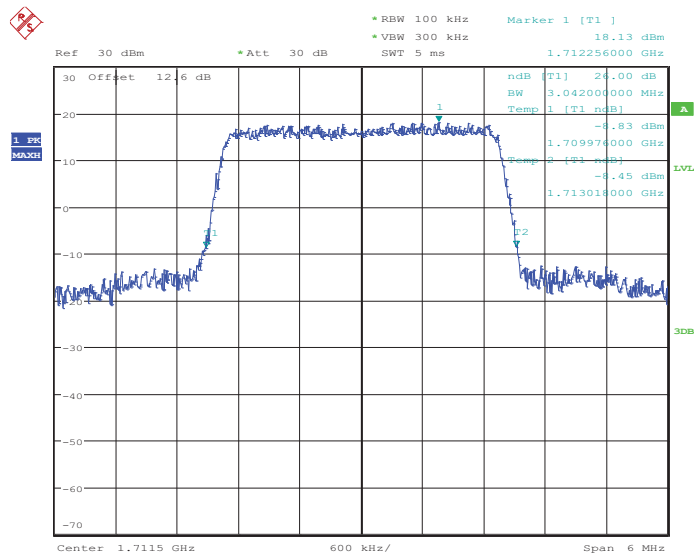
Band :	LTE Band 4	BW / Mod. :	3MHz / QPSK
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99% Occupied Bandwidth Plot on Channel 1965



Date: 21.DEC.2013 14:18:59

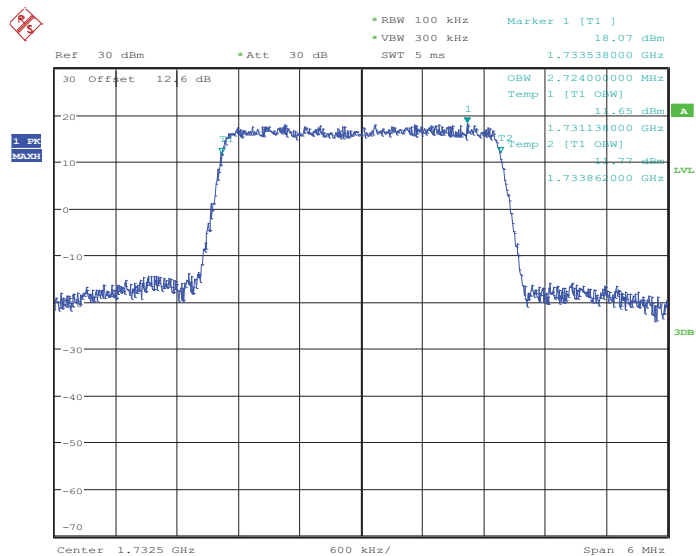
26dB Bandwidth Plot on Channel 1965



Date: 21.DEC.2013 14:19:26

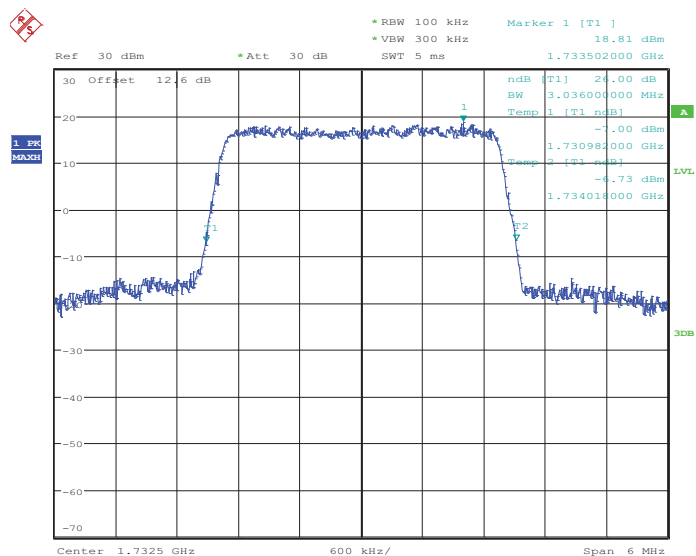


99% Occupied Bandwidth Plot on Channel 20175



Date: 21.DEC.2013 14:23:18

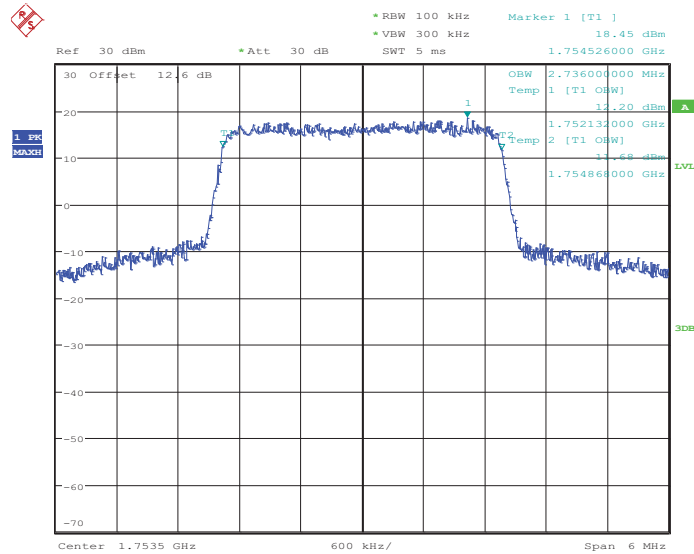
26dB Bandwidth Plot on Channel 20175



Date: 21.DEC.2013 14:23:50

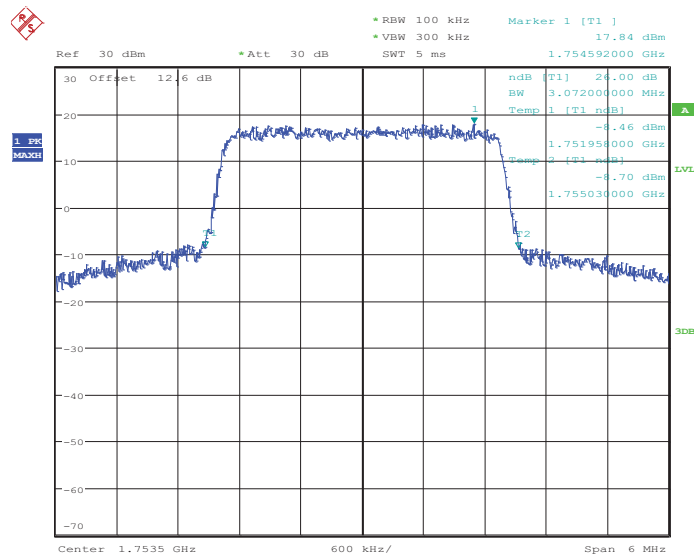


99% Occupied Bandwidth Plot on Channel 20385



Date: 21.DEC.2013 14:26:04

26dB Bandwidth Plot on Channel 20385

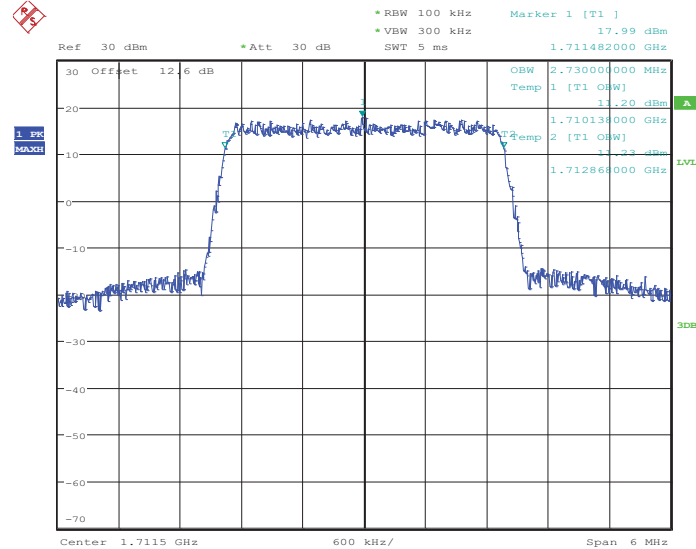


Date: 21.DEC.2013 14:26:27



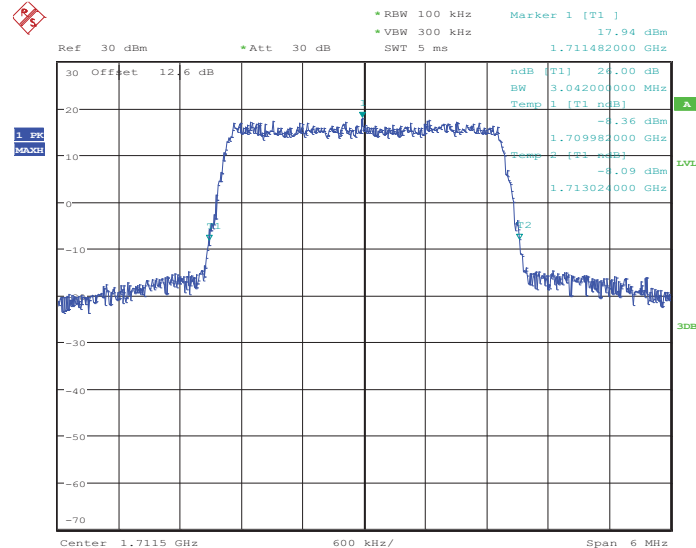
Band :	LTE Band 4	BW / Mod. :	3MHz / 16QAM
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99% Occupied Bandwidth Plot on Channel 19665



Date: 21.DEC.2013 14:19:14

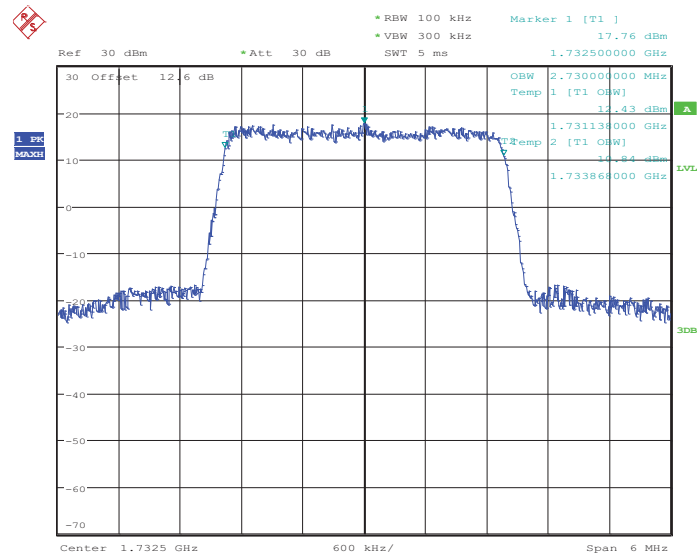
26dB Bandwidth Plot on Channel 19665



Date: 21.DEC.2013 14:19:40

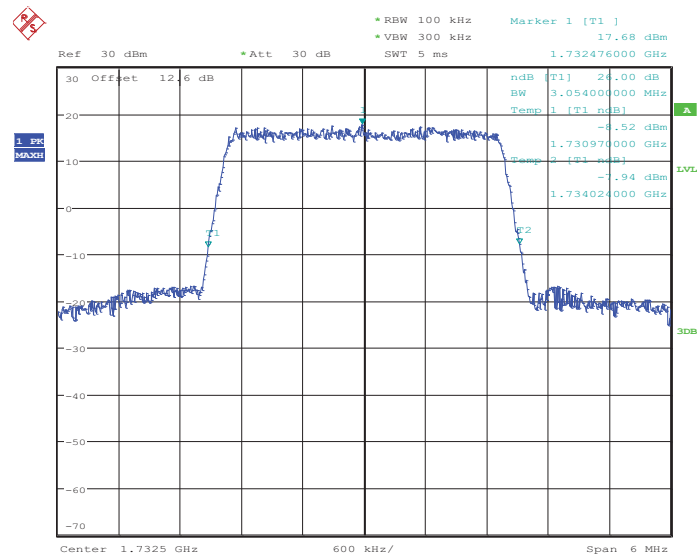


99% Occupied Bandwidth Plot on Channel 20175



Date: 21.DEC.2013 14:23:34

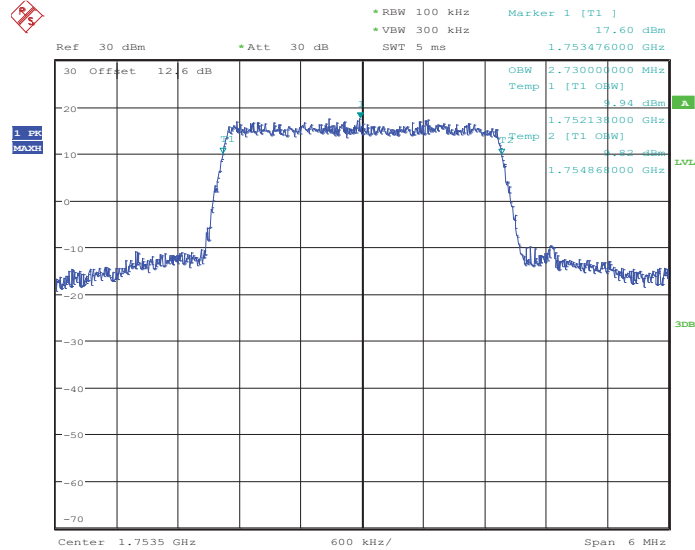
26dB Bandwidth Plot on Channel 20175



Date: 21.DEC.2013 14:24:08

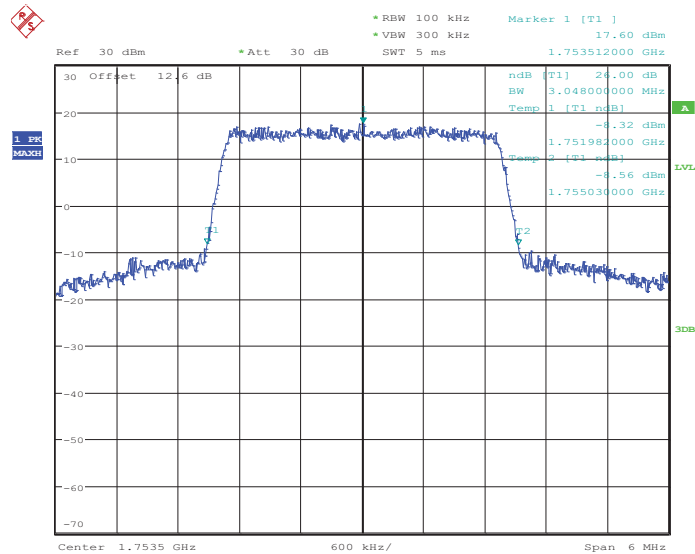


99% Occupied Bandwidth Plot on Channel 20385



Date: 21.DEC.2013 14:26:15

26dB Bandwidth Plot on Channel 20385

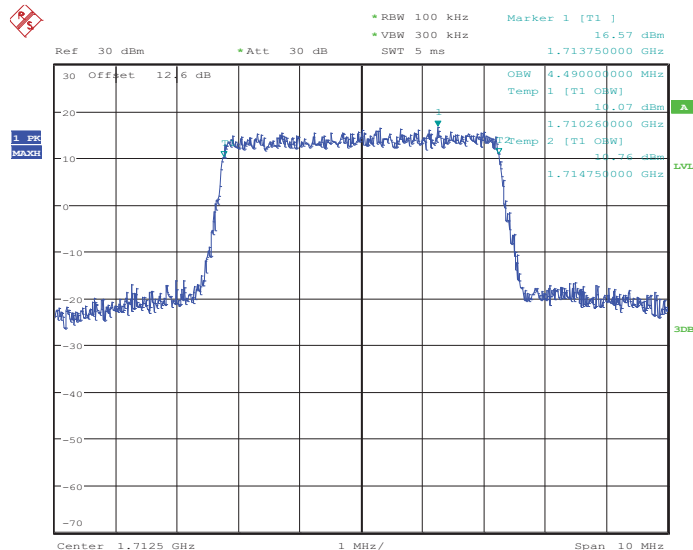


Date: 21.DEC.2013 14:26:40



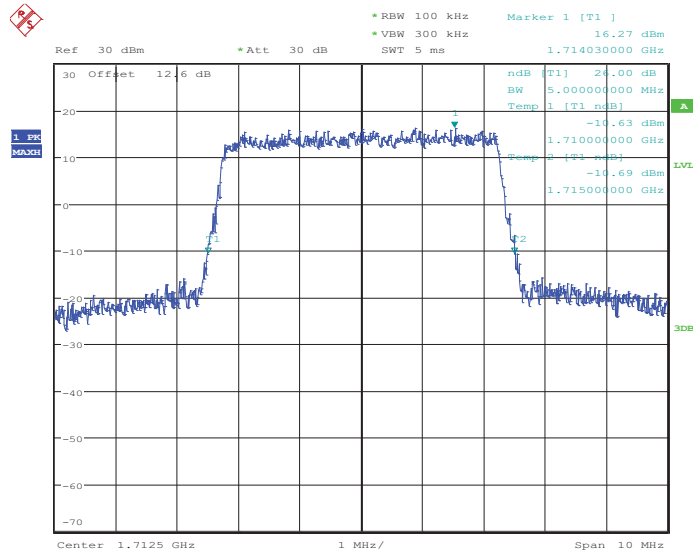
Band :	LTE Band 4	BW / Mod. :	5MHz / QPSK
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99% Occupied Bandwidth Plot on Channel 19975



Date: 21.DEC.2013 14:30:40

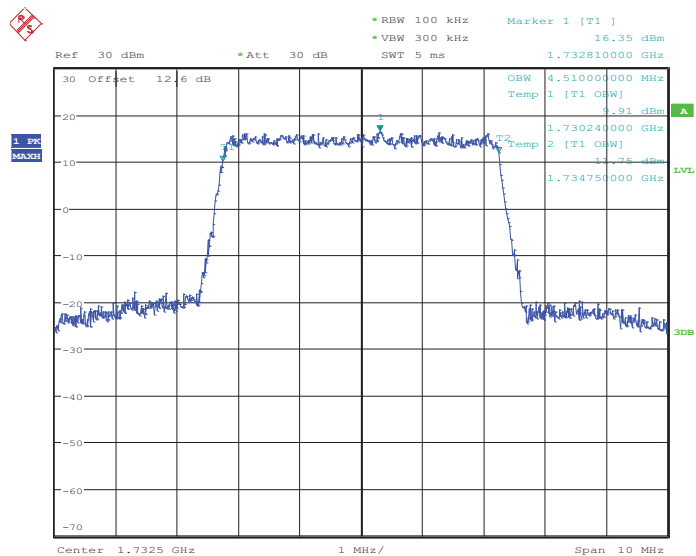
26dB Bandwidth Plot on Channel 19975



Date: 21.DEC.2013 14:30:59

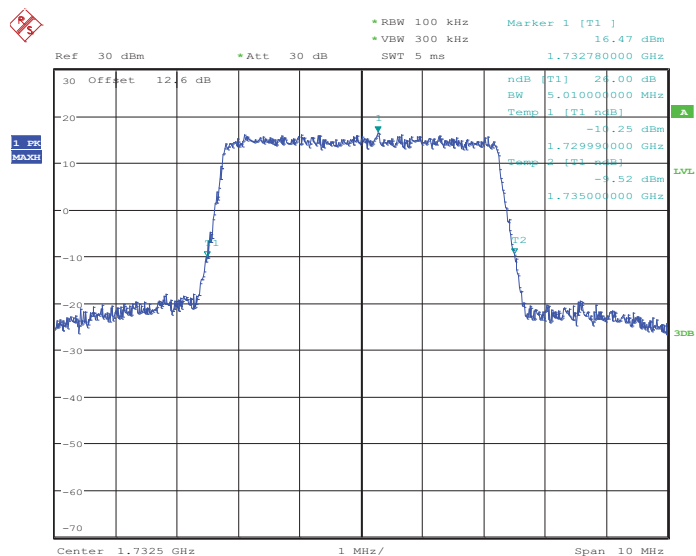


99% Occupied Bandwidth Plot on Channel 20175



Date: 21.DEC.2013 14:34:44

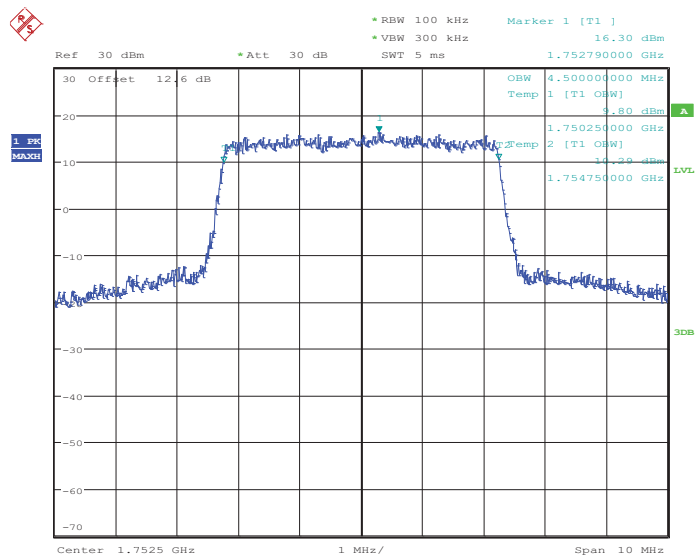
26dB Bandwidth Plot on Channel 20175



Date: 21.DEC.2013 14:35:14

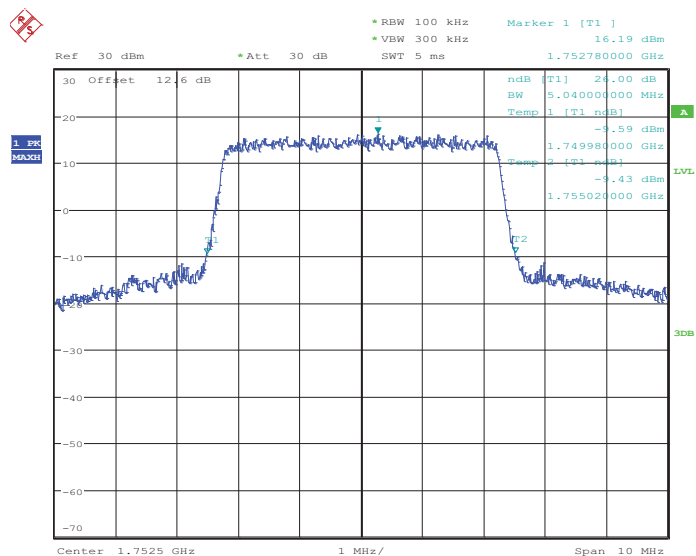


99% Occupied Bandwidth Plot on Channel 20375



Date: 21.DEC.2013 14:37:23

26dB Bandwidth Plot on Channel 20375

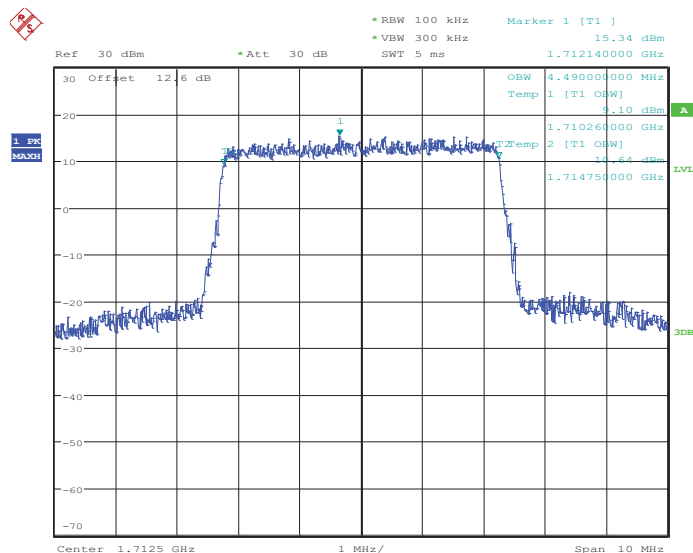


Date: 21.DEC.2013 14:37:51



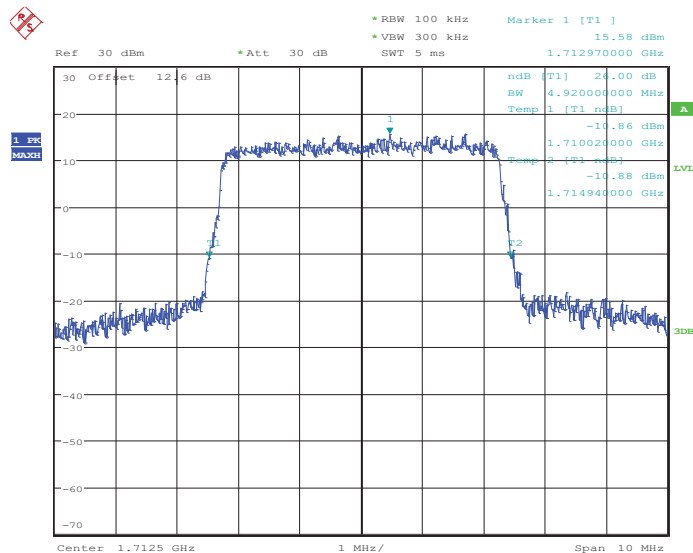
Band :	LTE Band 4	BW / Mod. :	5MHz / 16QAM
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99% Occupied Bandwidth Plot on Channel 19975



Date: 21.DEC.2013 14:30:50

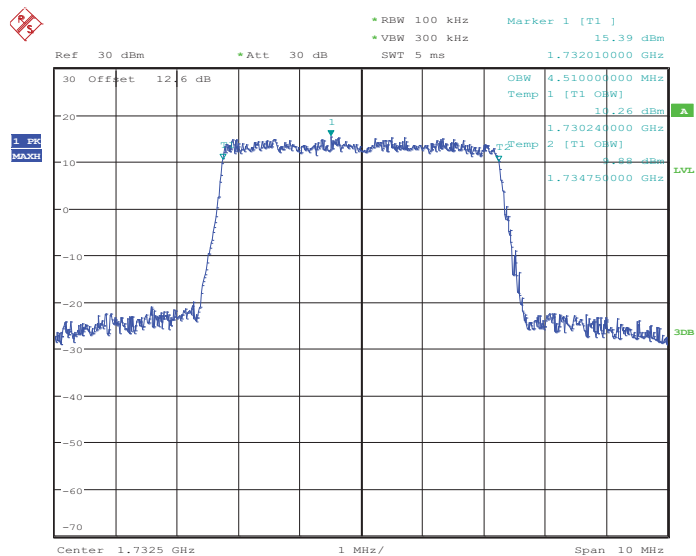
26dB Bandwidth Plot on Channel 19975



Date: 21.DEC.2013 14:31:09

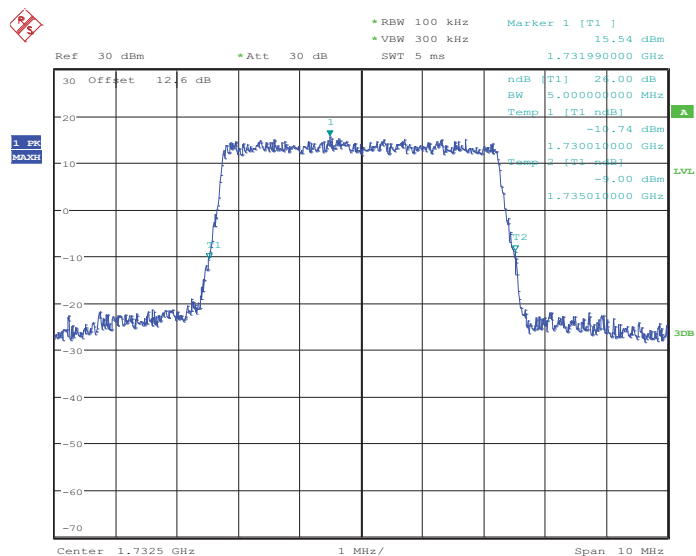


99% Occupied Bandwidth Plot on Channel 20175



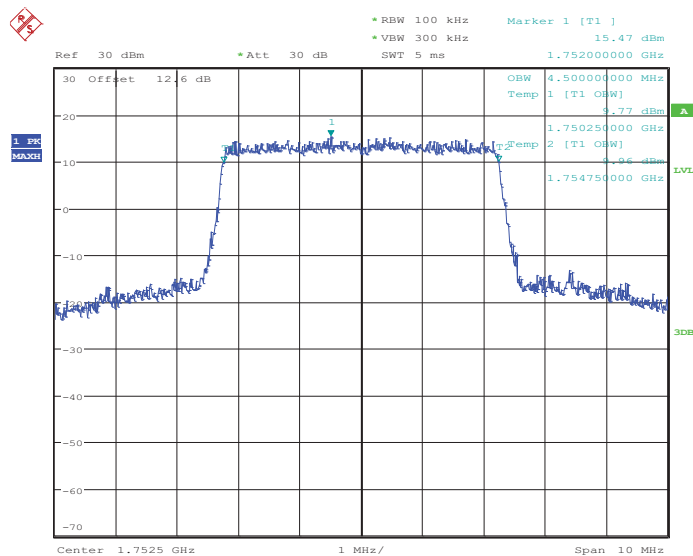
Date: 21.DEC.2013 14:34:56

26dB Bandwidth Plot on Channel 20175



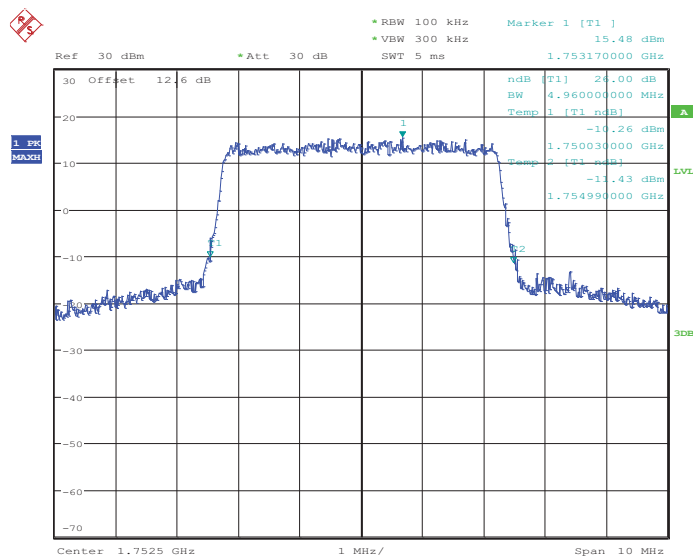
Date: 21.DEC.2013 14:35:28

99% Occupied Bandwidth Plot on Channel 20375



Date: 21.DEC.2013 14:37:37

26dB Bandwidth Plot on Channel 20375

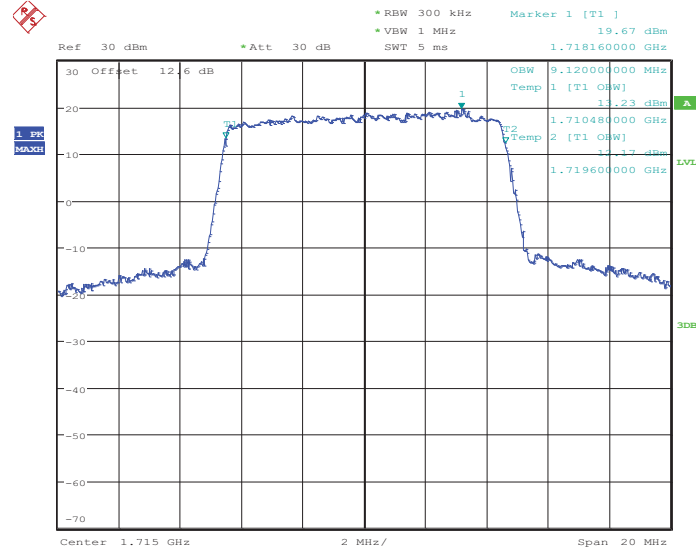


Date: 21.DEC.2013 14:38:04



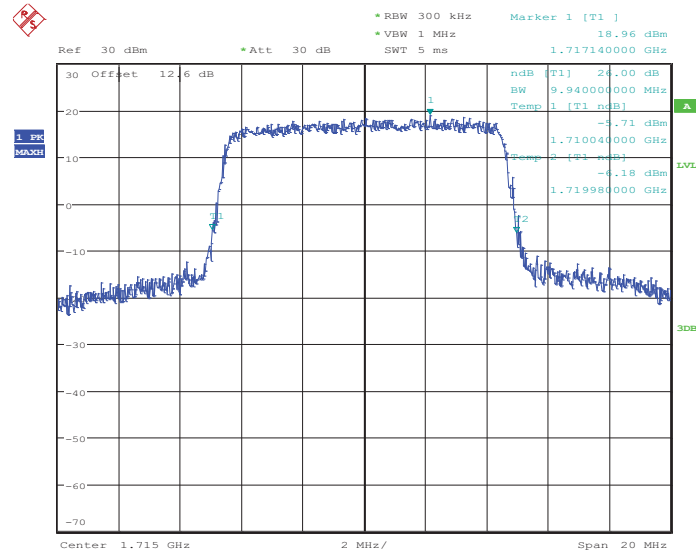
Band :	LTE Band 4	BW / Mod. :	10MHz / QPSK
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99% Occupied Bandwidth Plot on Channel 20000



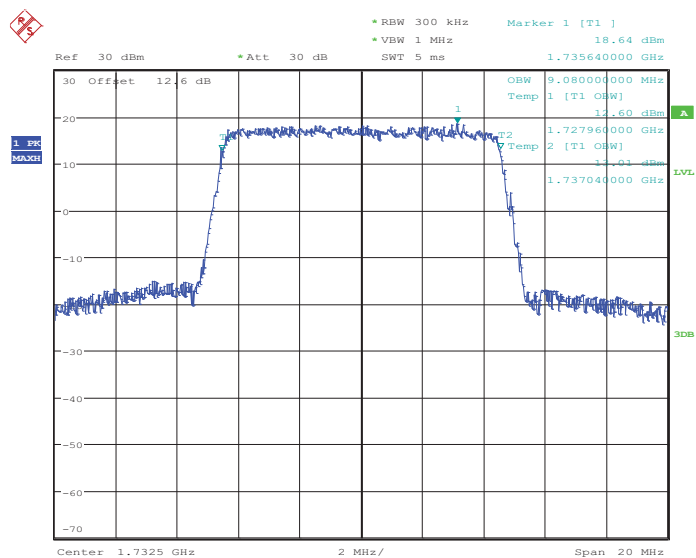
Date: 21.DEC.2013 14:42:46

26dB Bandwidth Plot on Channel 20000



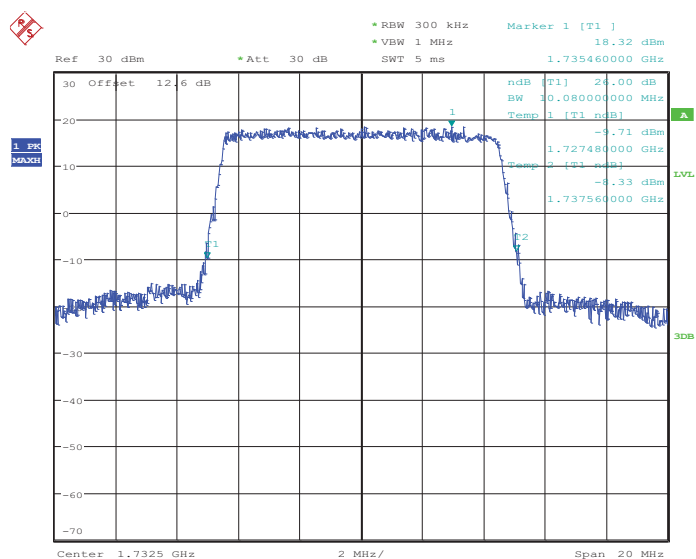
Date: 21.DEC.2013 14:43:14

99% Occupied Bandwidth Plot on Channel 20175



Date: 21.DEC.2013 14:47:21

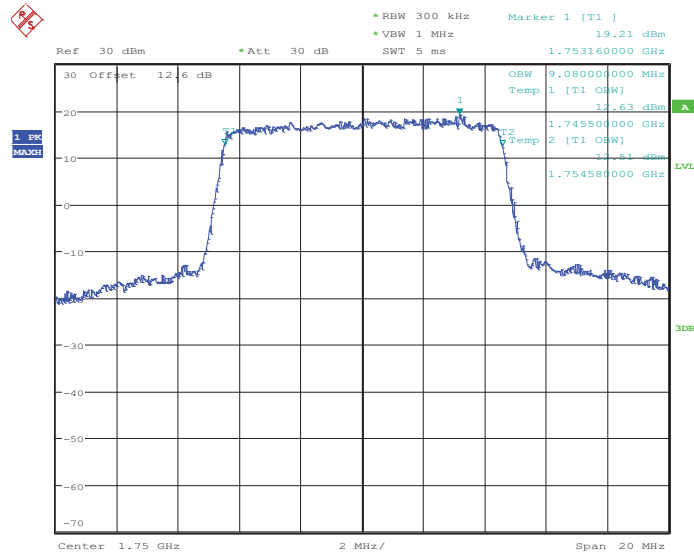
26dB Bandwidth Plot on Channel 20175



Date: 21.DEC.2013 14:47:47

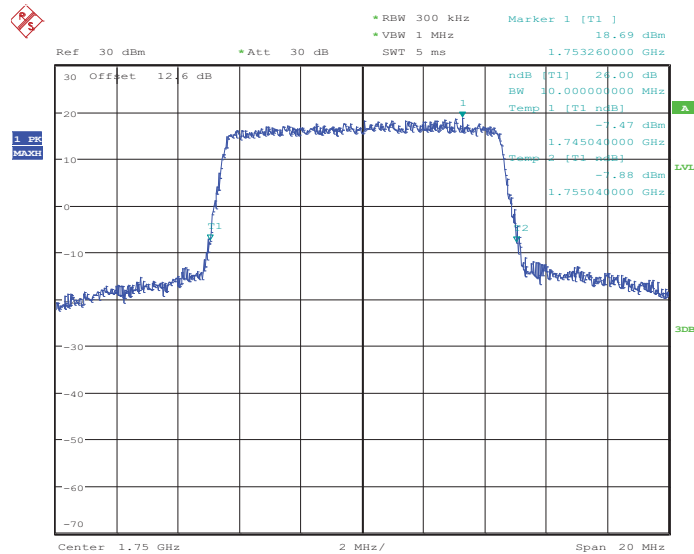


99% Occupied Bandwidth Plot on Channel 20350



Date: 21.DEC.2013 14:50:16

26dB Bandwidth Plot on Channel 20350

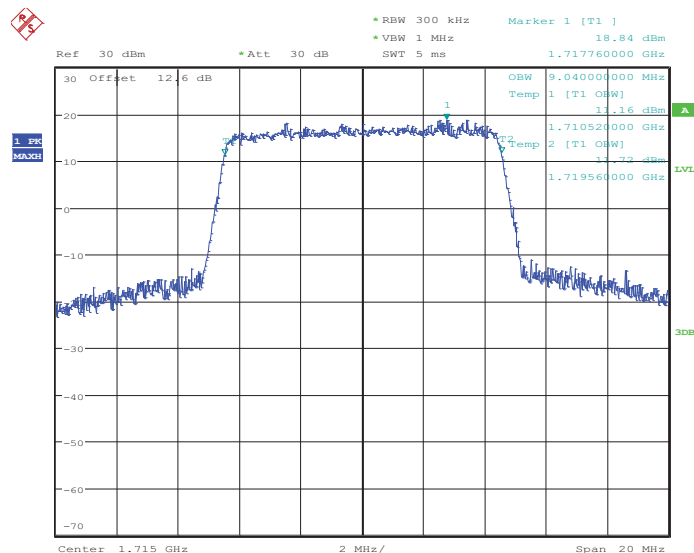


Date: 21.DEC.2013 14:50:39



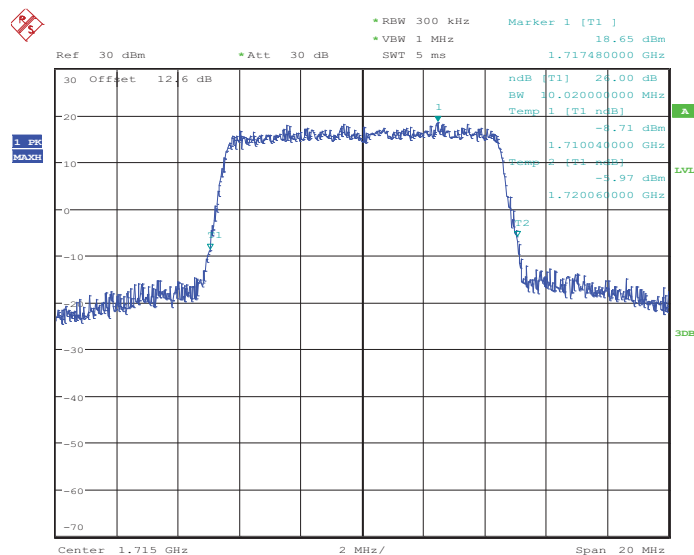
Band :	LTE Band 4	BW / Mod. :	10MHz / 16QAM
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99% Occupied Bandwidth Plot on Channel 20000



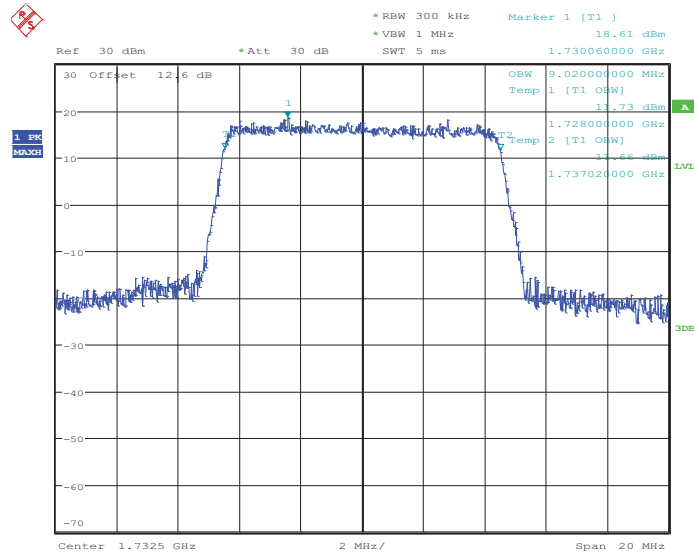
Date: 21.DEC.2013 14:43:00

26dB Bandwidth Plot on Channel 20000



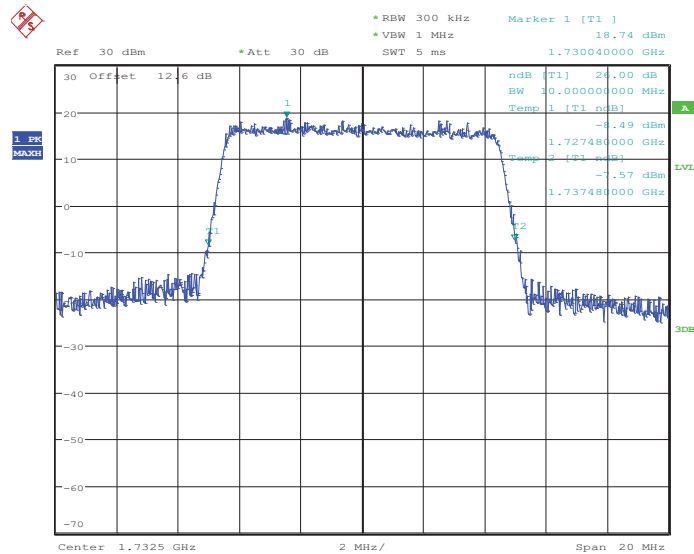
Date: 21.DEC.2013 14:43:25

99% Occupied Bandwidth Plot on Channel 20175



Date: 21.DEC.2013 14:47:35

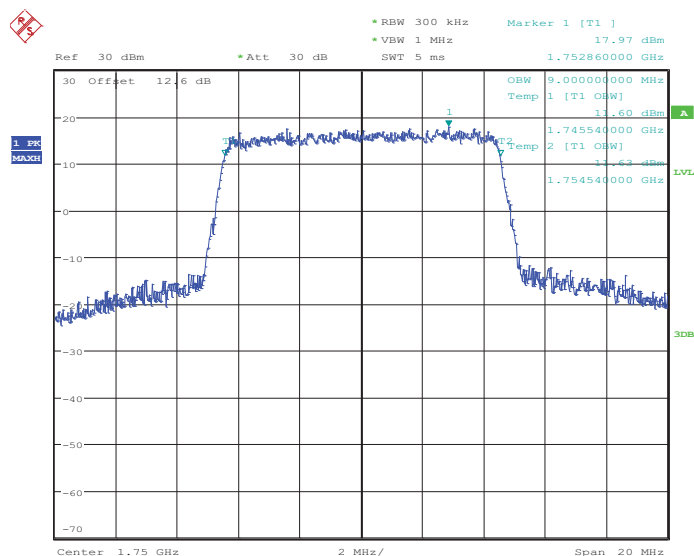
26dB Bandwidth Plot on Channel 20175



Date: 21.DEC.2013 14:48:02

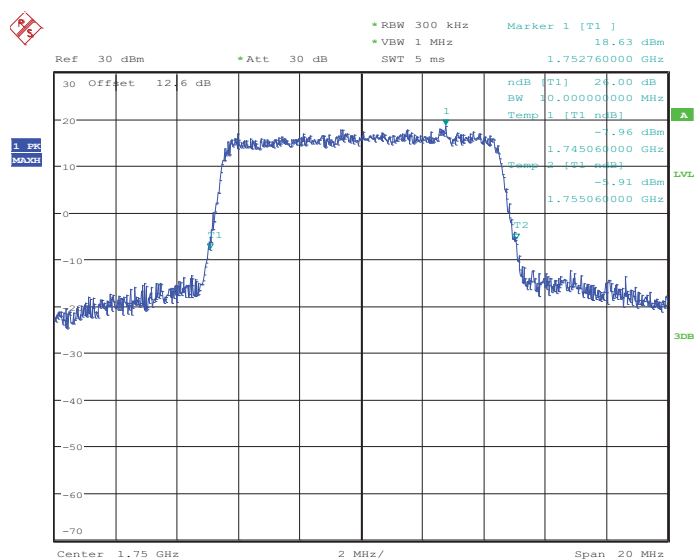


99% Occupied Bandwidth Plot on Channel 20350



Date: 21.DEC.2013 14:50:27

26dB Bandwidth Plot on Channel 20350

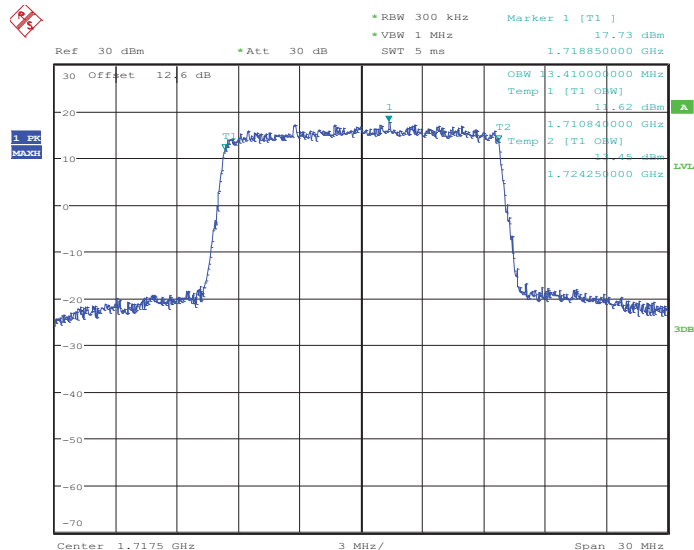


Date: 21.DEC.2013 14:50:50



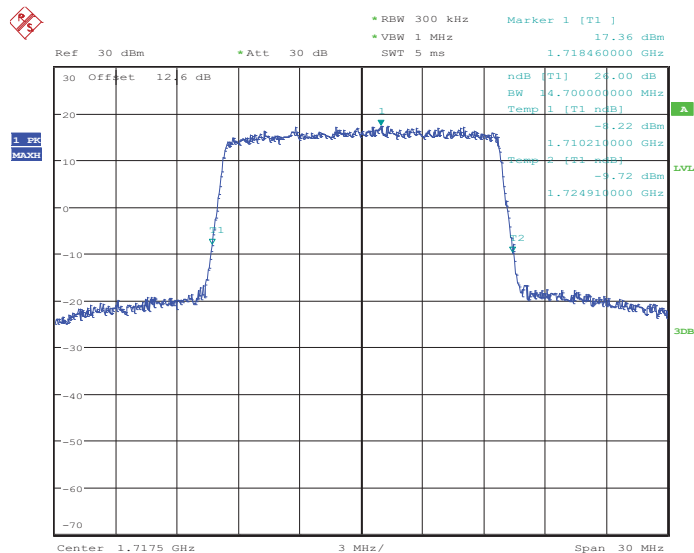
Band :	LTE Band 4	BW / Mod. :	15MHz / QPSK
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99% Occupied Bandwidth Plot on Channel 20025



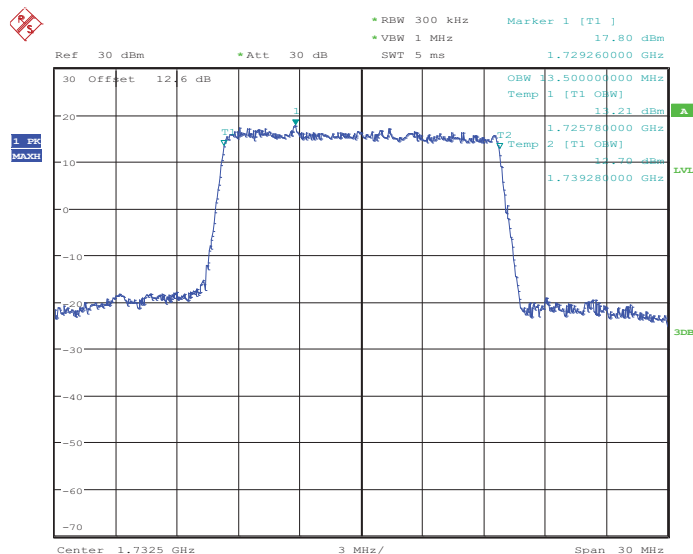
Date: 21.DEC.2013 14:54:49

26dB Bandwidth Plot on Channel 20025



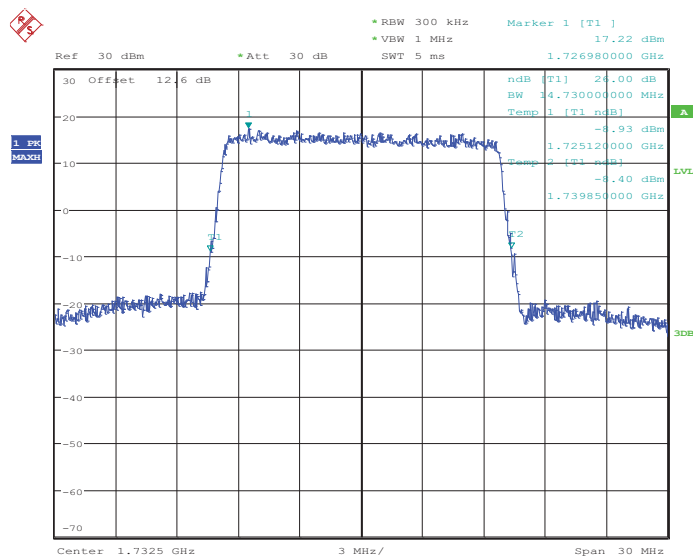
Date: 21.DEC.2013 14:55:27

99% Occupied Bandwidth Plot on Channel 20175



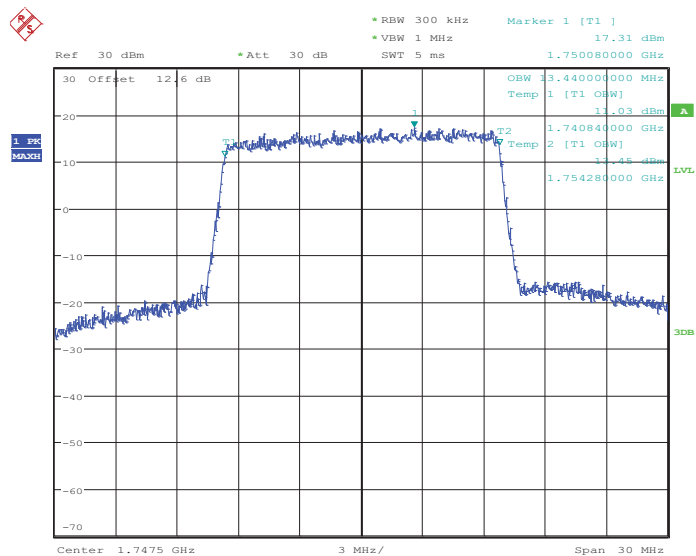
Date: 21.DEC.2013 14:59:30

26dB Bandwidth Plot on Channel 20175



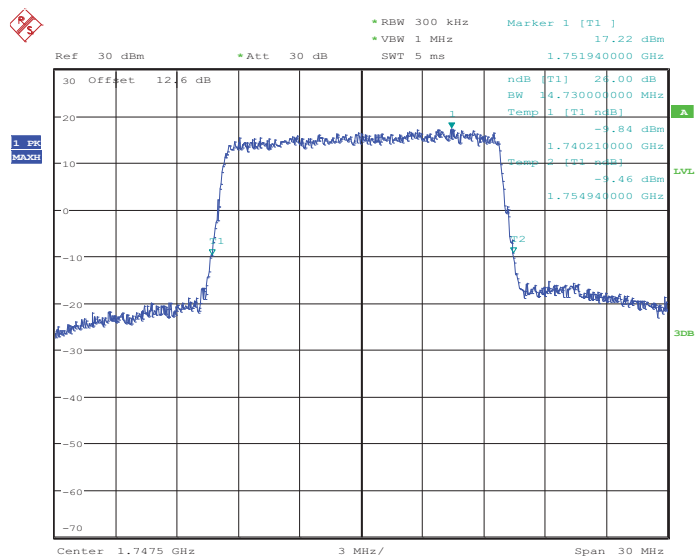
Date: 21.DEC.2013 14:59:53

99% Occupied Bandwidth Plot on Channel 20325



Date: 21.DEC.2013 15:07:21

26dB Bandwidth Plot on Channel 20325

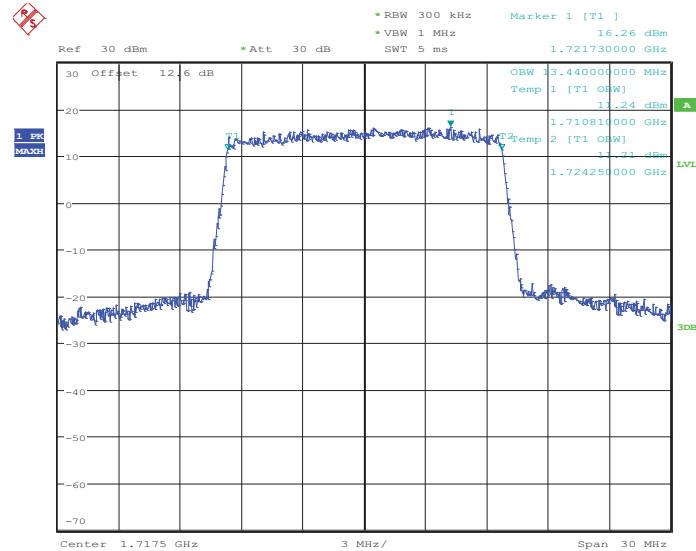


Date: 21.DEC.2013 15:07:35



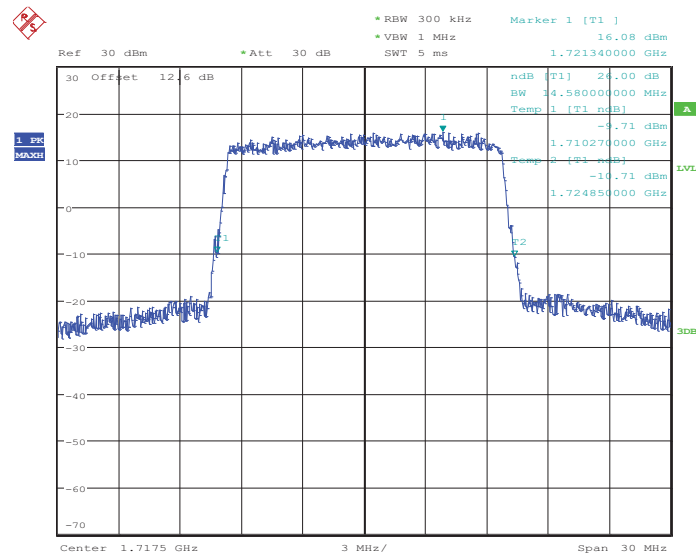
Band :	LTE Band 4	BW / Mod. :	15MHz / 16QAM
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99% Occupied Bandwidth Plot on Channel 20025



Date: 21.DEC.2013 14:55:06

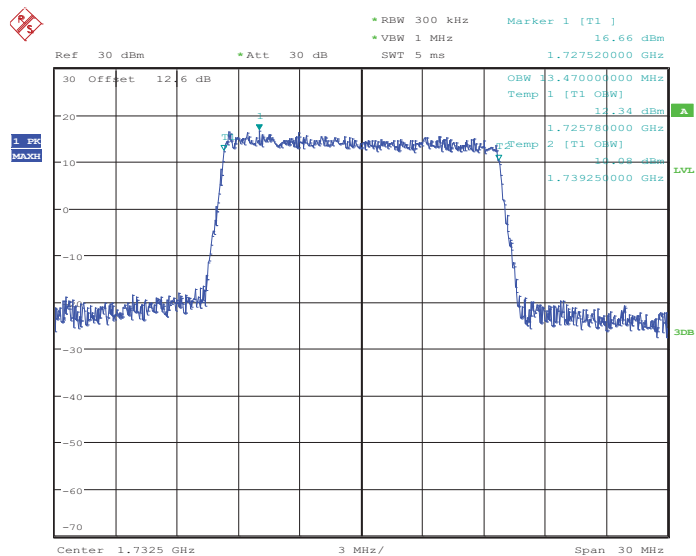
26dB Bandwidth Plot on Channel 20025



Date: 21.DEC.2013 14:55:36

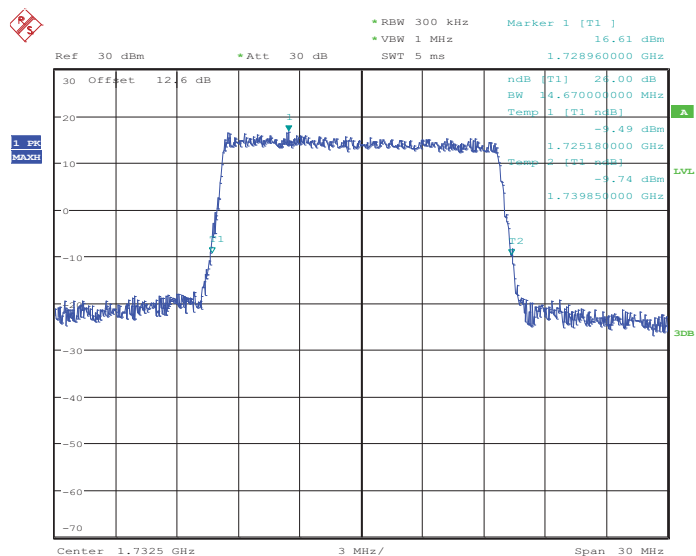


99% Occupied Bandwidth Plot on Channel 20175



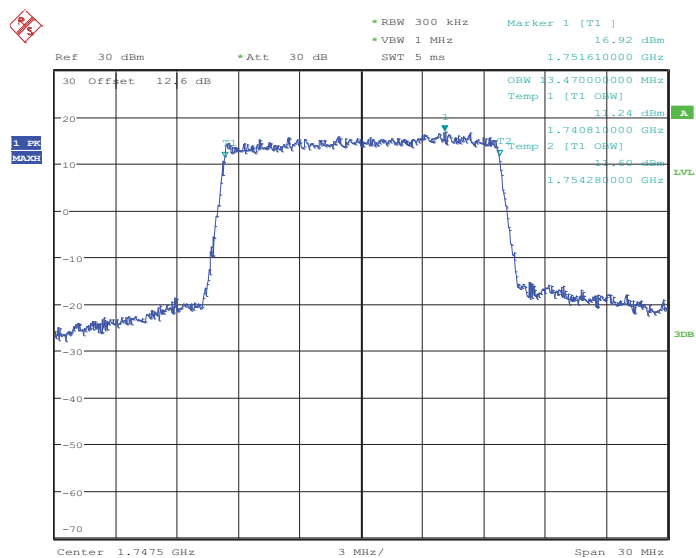
Date: 21.DEC.2013 14:59:41

26dB Bandwidth Plot on Channel 20175



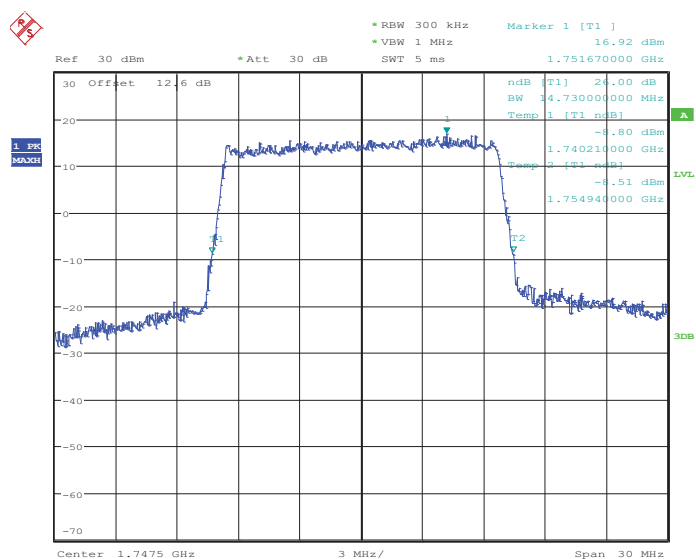
Date: 21.DEC.2013 15:00:07

99% Occupied Bandwidth Plot on Channel 20325



Date: 21.DEC.2013 15:08:56

26dB Bandwidth Plot on Channel 20325

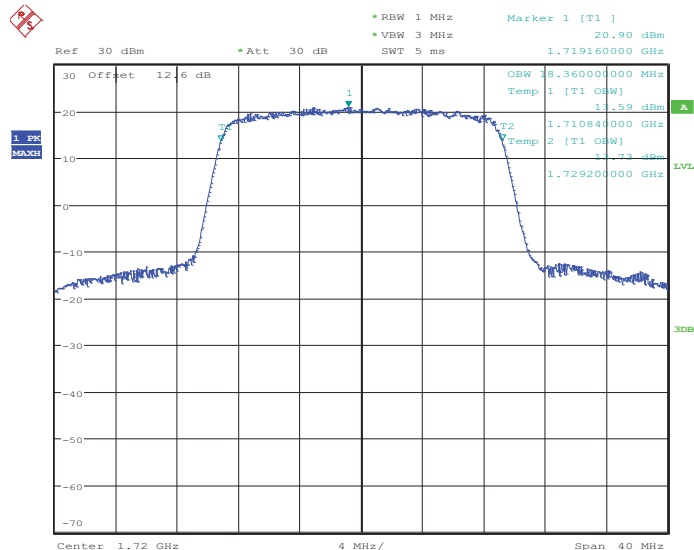


Date: 21.DEC.2013 15:09:14



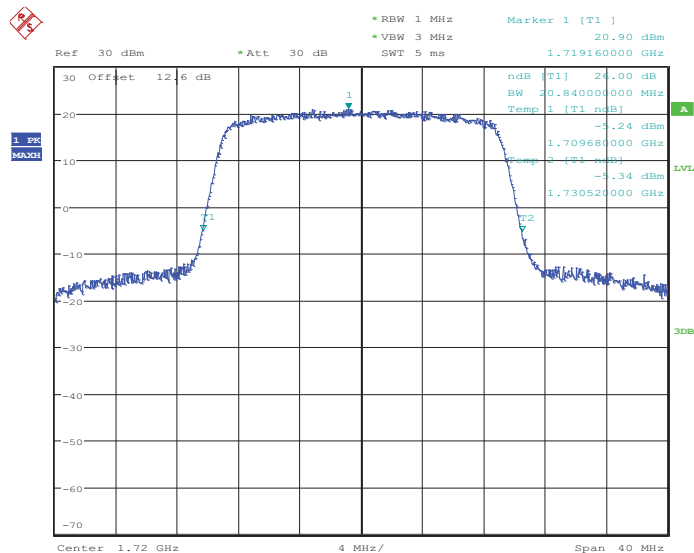
Band :	LTE Band 4	BW / Mod. :	20MHz / QPSK
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99% Occupied Bandwidth Plot on Channel 20050



Date: 21.DEC.2013 15:14:32

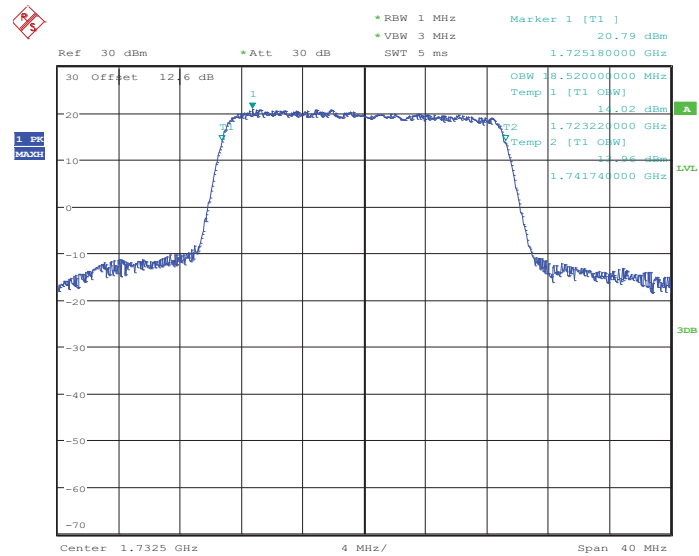
26dB Bandwidth Plot on Channel 20050



Date: 21.DEC.2013 15:15:00

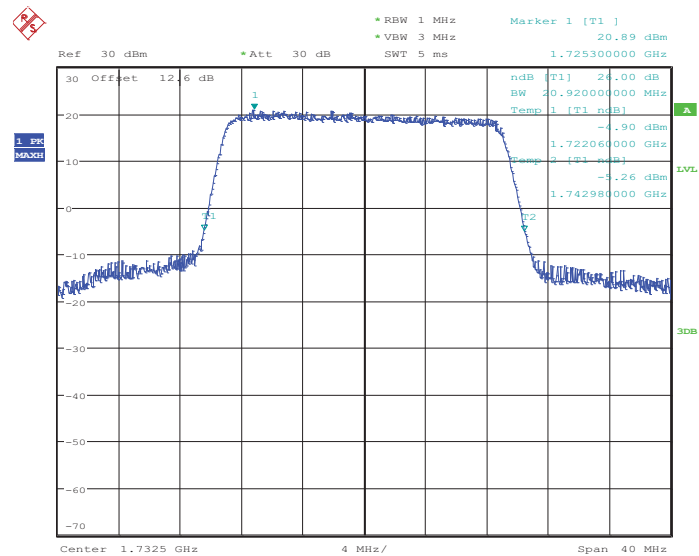


99% Occupied Bandwidth Plot on Channel 20175



Date: 21.DEC.2013 15:19:42

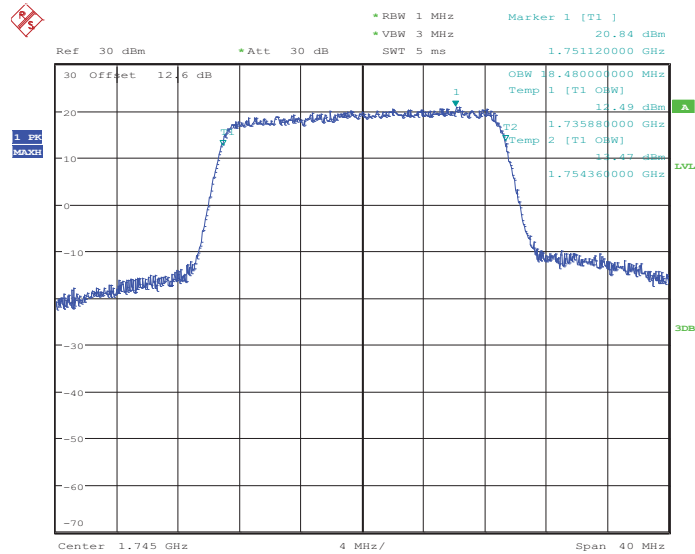
26dB Bandwidth Plot on Channel 20175



Date: 21.DEC.2013 15:20:05

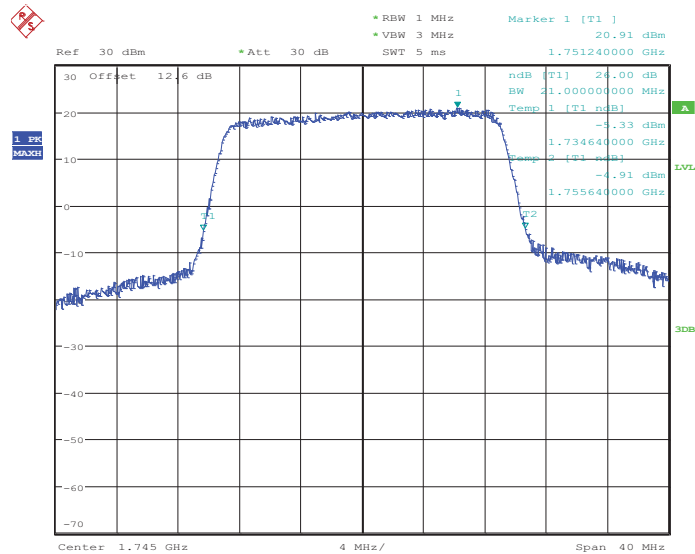


99% Occupied Bandwidth Plot on Channel 20300



Date: 21.DEC.2013 15:22:33

26dB Bandwidth Plot on Channel 20300

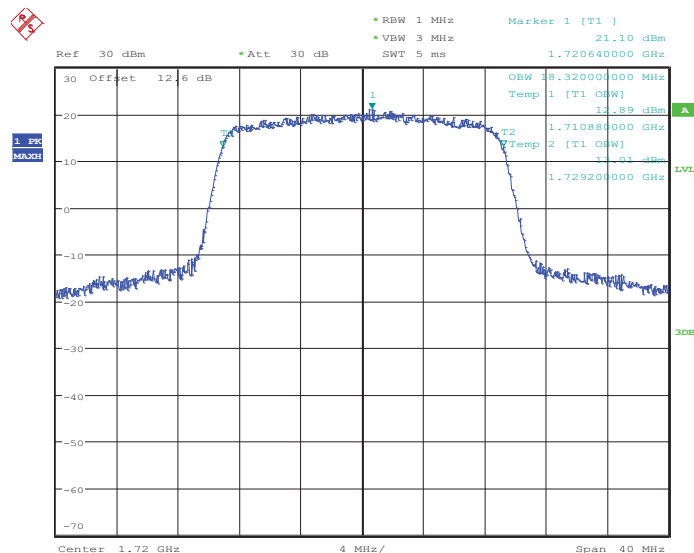


Date: 21.DEC.2013 15:22:59



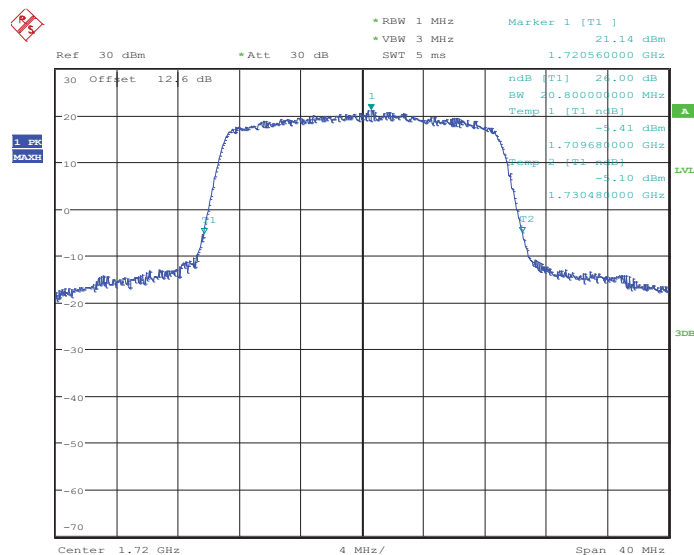
Band :	LTE Band 4	BW / Mod. :	20MHz / 16QAM
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99% Occupied Bandwidth Plot on Channel 20050



Date: 21.DEC.2013 15:14:46

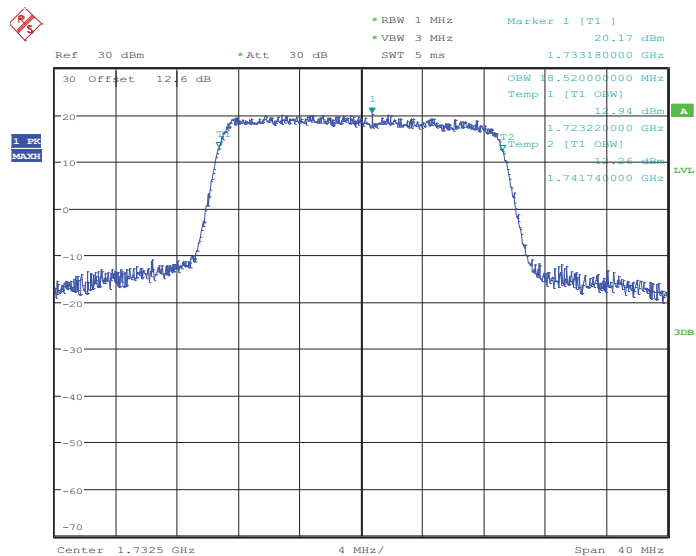
26dB Bandwidth Plot on Channel 20050



Date: 21.DEC.2013 15:15:21

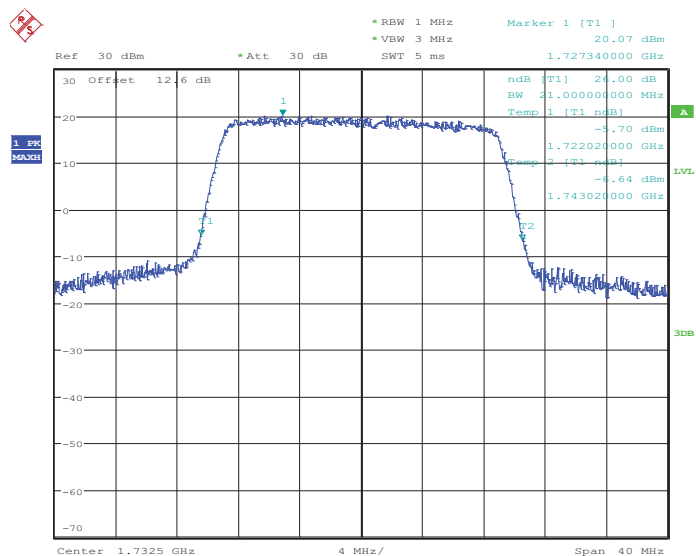


99% Occupied Bandwidth Plot on Channel 20175



Date: 21.DEC.2013 15:19:53

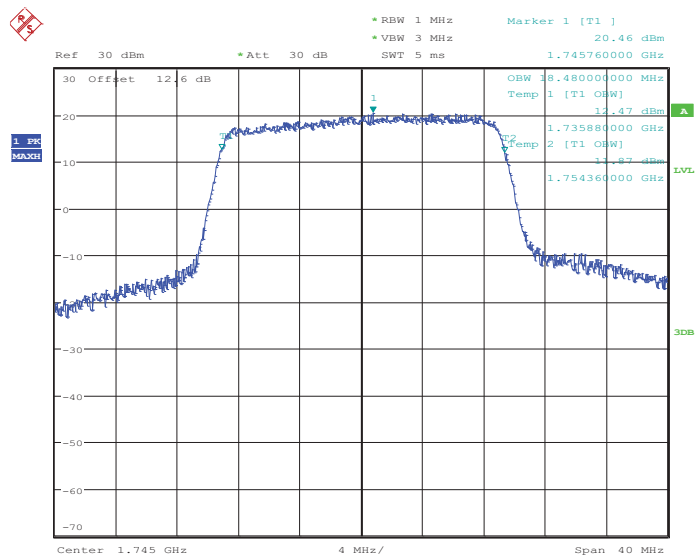
26dB Bandwidth Plot on Channel 20175



Date: 21.DEC.2013 15:20:17

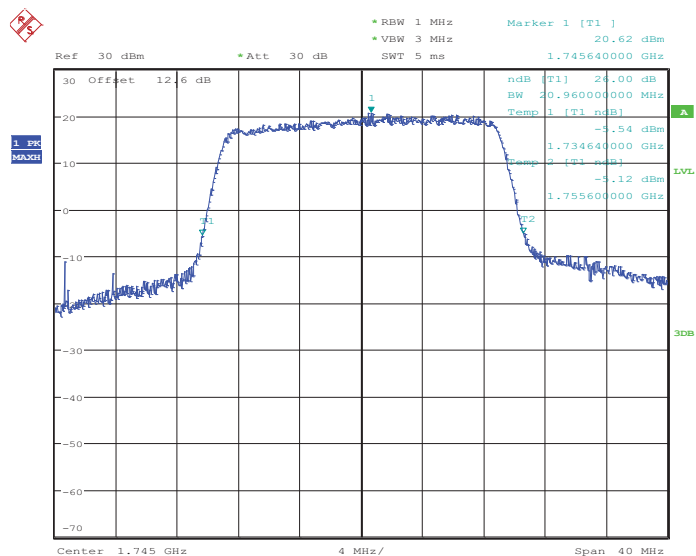


99% Occupied Bandwidth Plot on Channel 20300



Date: 21.DEC.2013 15:22:46

26dB Bandwidth Plot on Channel 20300



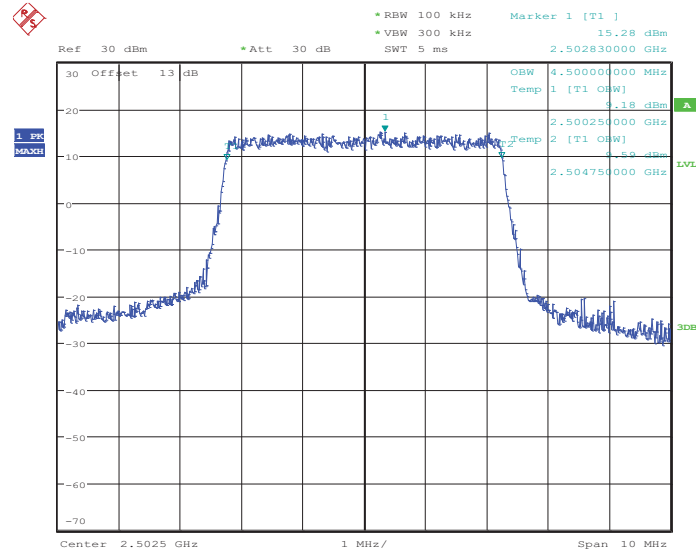
Date: 21.DEC.2013 15:23:14

Note: The total loss is 12.6 dB of the RF cable and attenuator of LTE Band 4, and has been compensated to the spectrum analyzer offset.



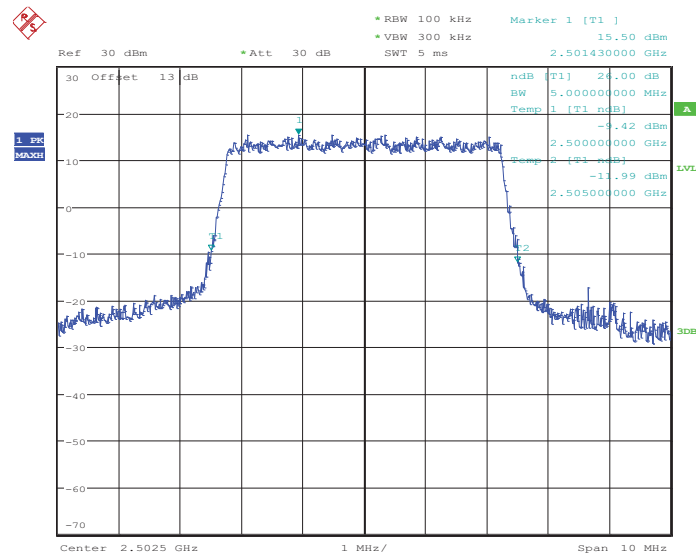
Band :	LTE Band 7	BW / Mod. :	5MHz / QPSK
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99% Occupied Bandwidth Plot on Channel 20775



Date: 17.DEC.2013 18:57:31

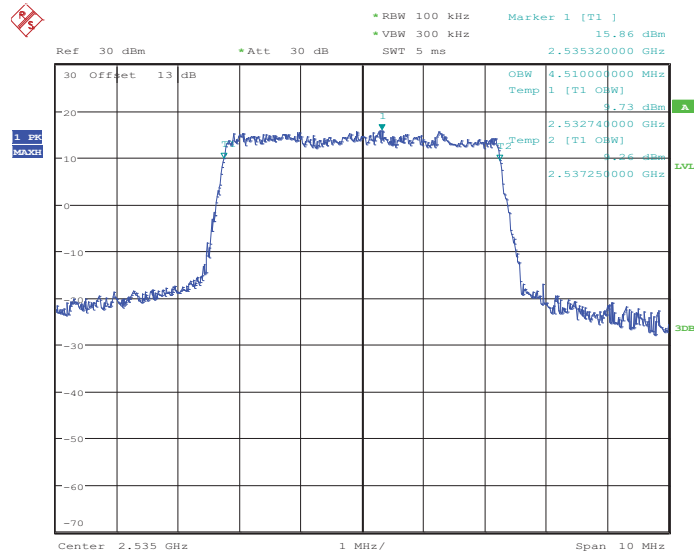
26dB Bandwidth Plot on Channel 20775



Date: 17.DEC.2013 19:00:23

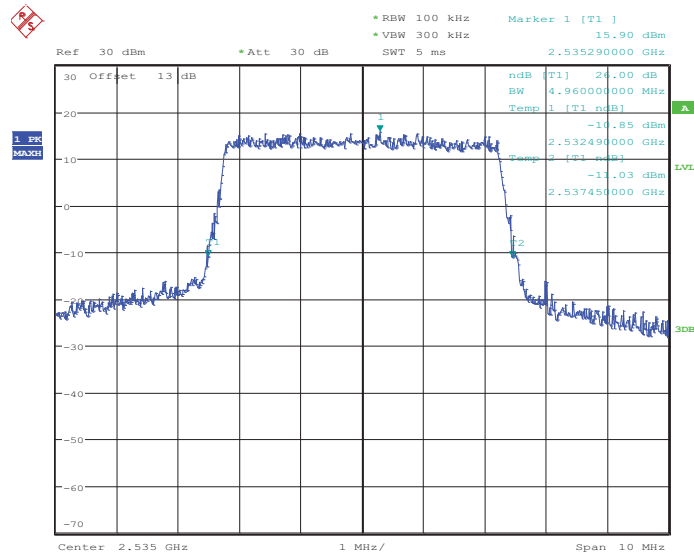


99% Occupied Bandwidth Plot on Channel 21100



Date: 17.DEC.2013 19:08:40

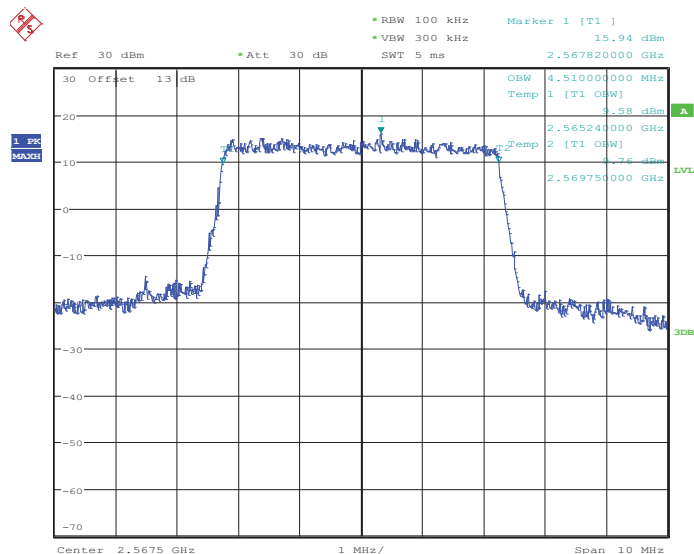
26dB Bandwidth Plot on Channel 21100



Date: 17.DEC.2013 19:08:55

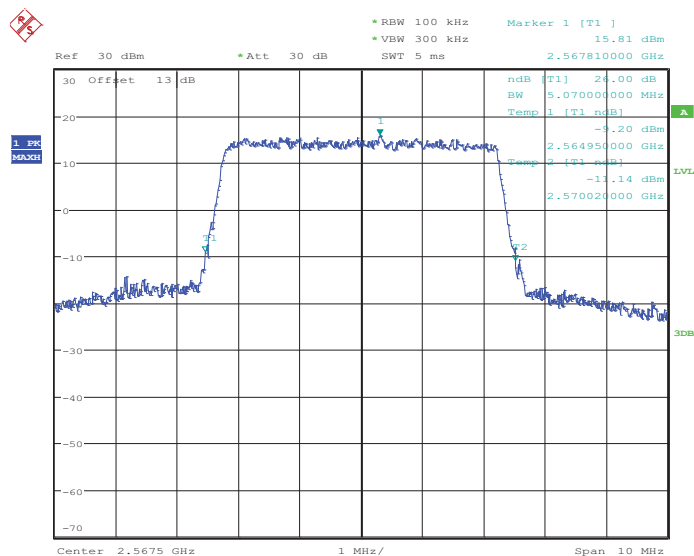


99% Occupied Bandwidth Plot on Channel 21425



Date: 17.DEC.2013 19:13:29

26dB Bandwidth Plot on Channel 21425

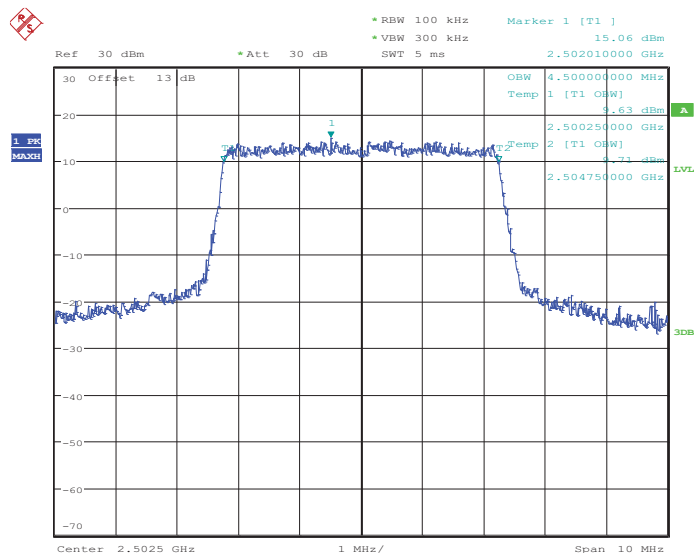


Date: 17.DEC.2013 19:14:24



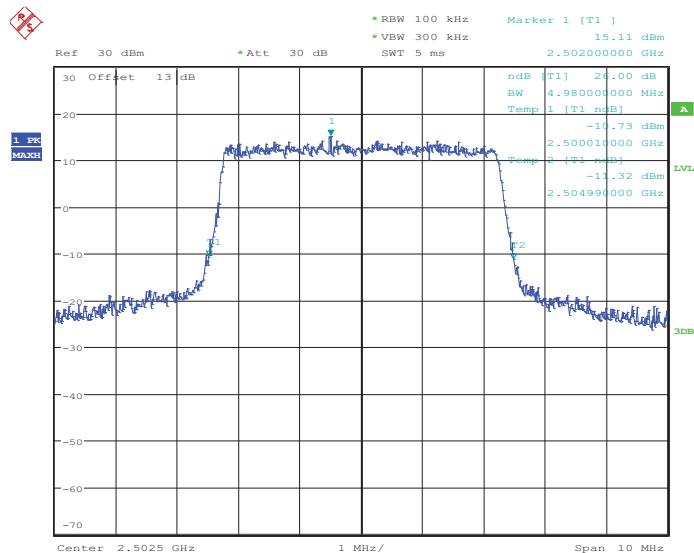
Band :	LTE Band 7	BW / Mod. :	5MHz / 16QAM
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99% Occupied Bandwidth Plot on Channel 20775



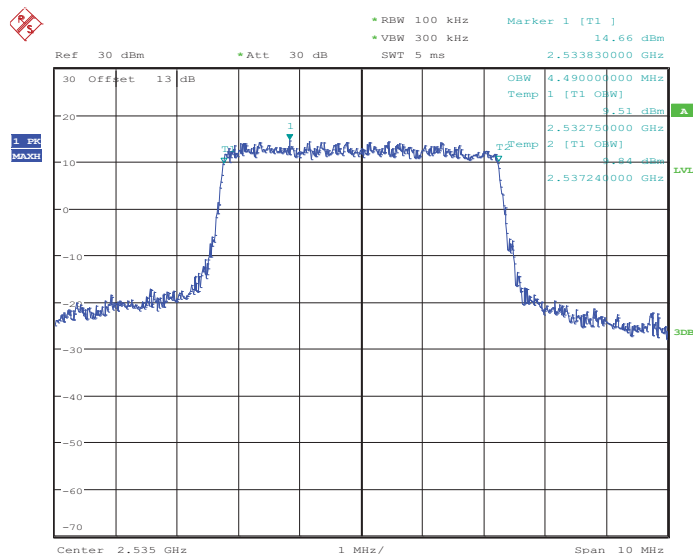
Date: 17.DEC.2013 18:58:47

26dB Bandwidth Plot on Channel 20775



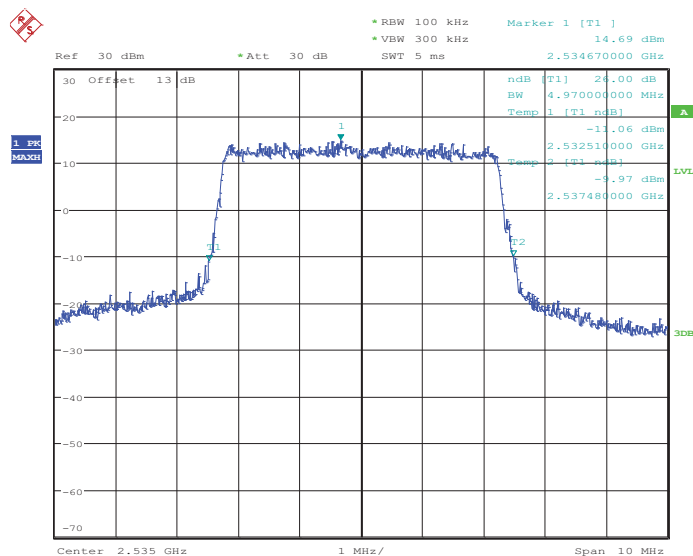
Date: 17.DEC.2013 18:58:29

99% Occupied Bandwidth Plot on Channel 21100



Date: 17.DEC.2013 19:02:00

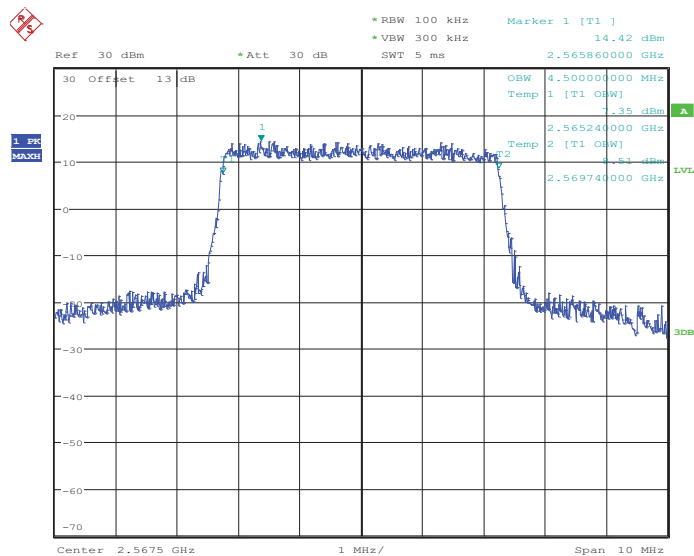
26dB Bandwidth Plot on Channel 21100



Date: 17.DEC.2013 19:02:16

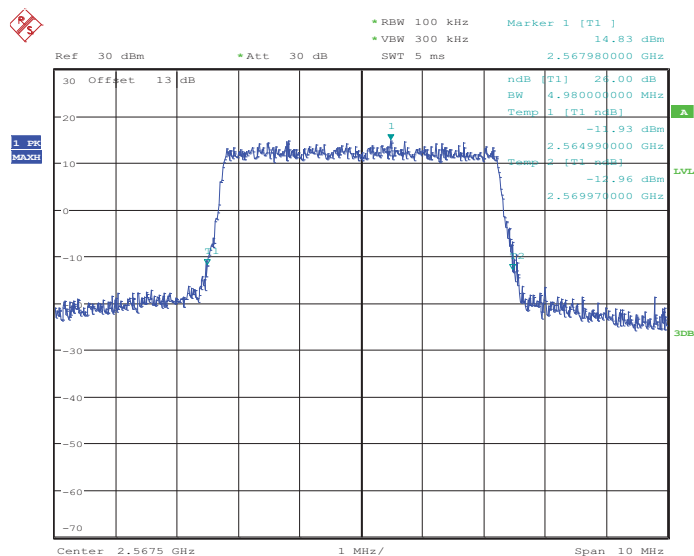


99% Occupied Bandwidth Plot on Channel 21425



Date: 17.DEC.2013 19:16:13

26dB Bandwidth Plot on Channel 21425

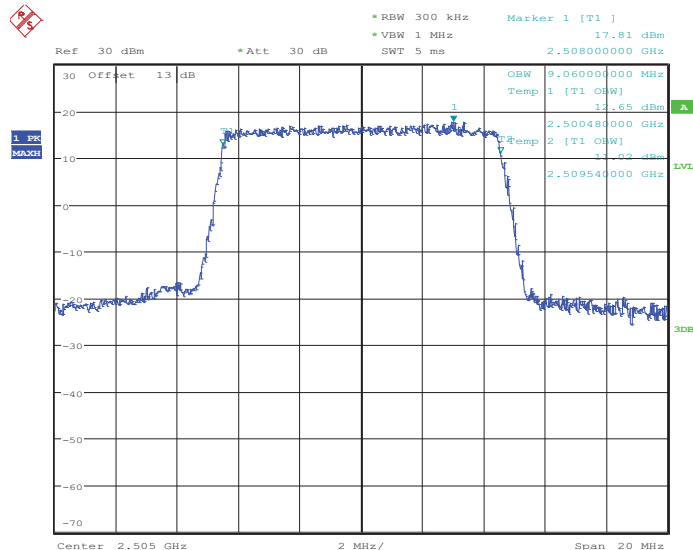


Date: 17.DEC.2013 19:16:01



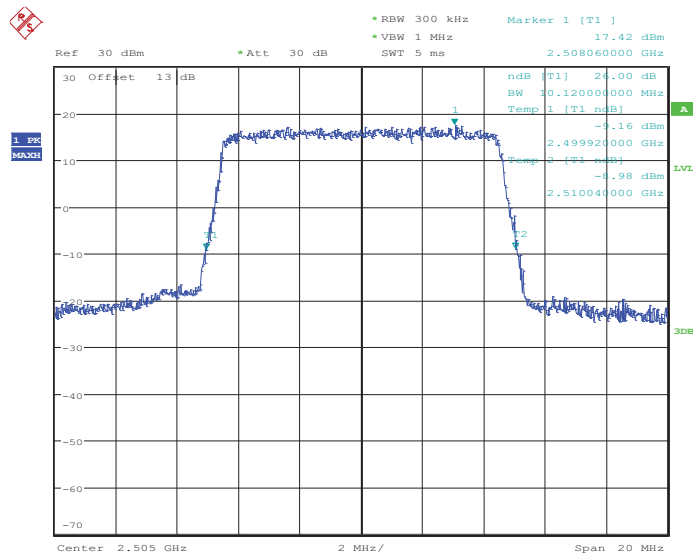
Band :	LTE Band 7	BW / Mod. :	10MHz / QPSK
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99% Occupied Bandwidth Plot on Channel 20800



Date: 17.DEC.2013 19:17:58

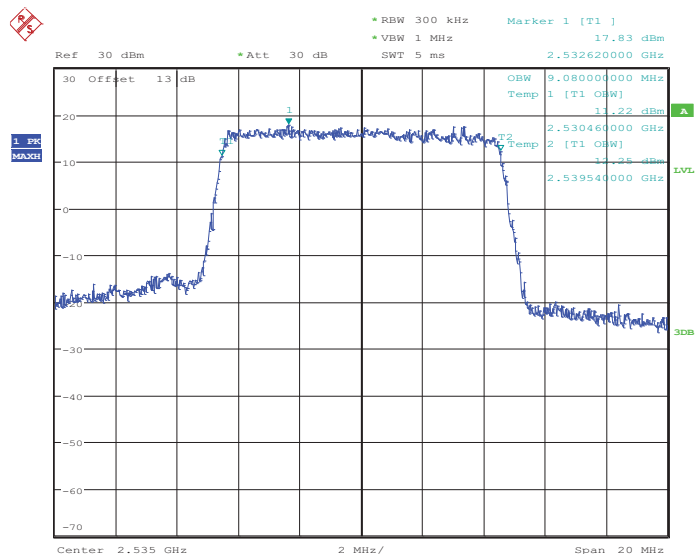
26dB Bandwidth Plot on Channel 20800



Date: 17.DEC.2013 19:18:10

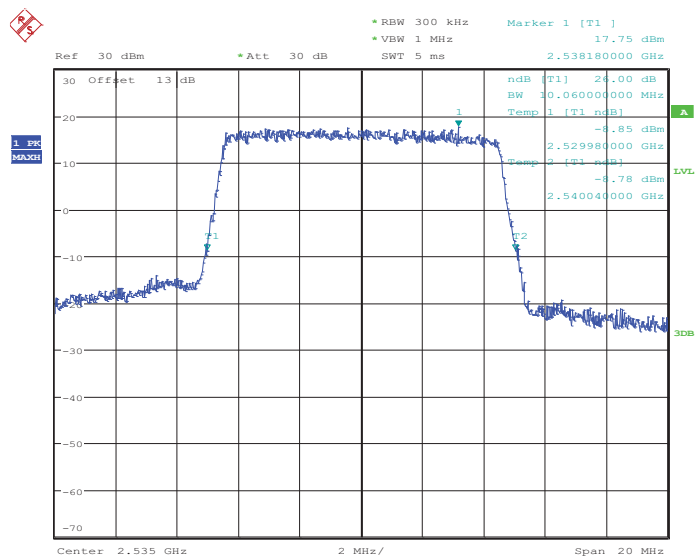


99% Occupied Bandwidth Plot on Channel 21100



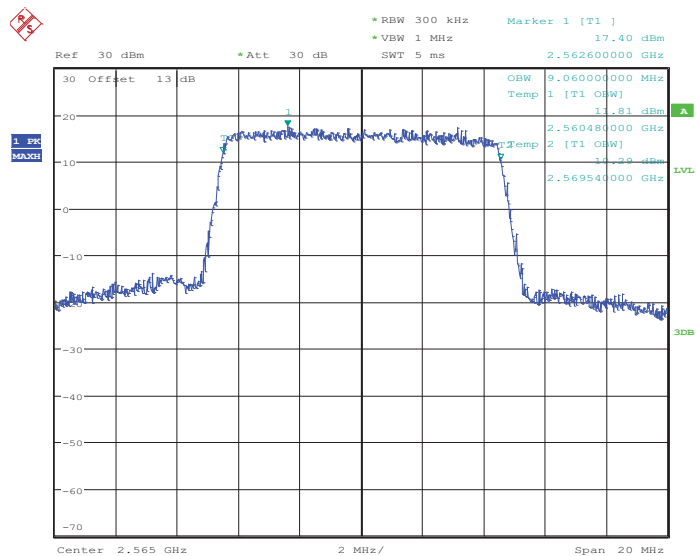
Date: 17.DEC.2013 19:31:18

26dB Bandwidth Plot on Channel 21100



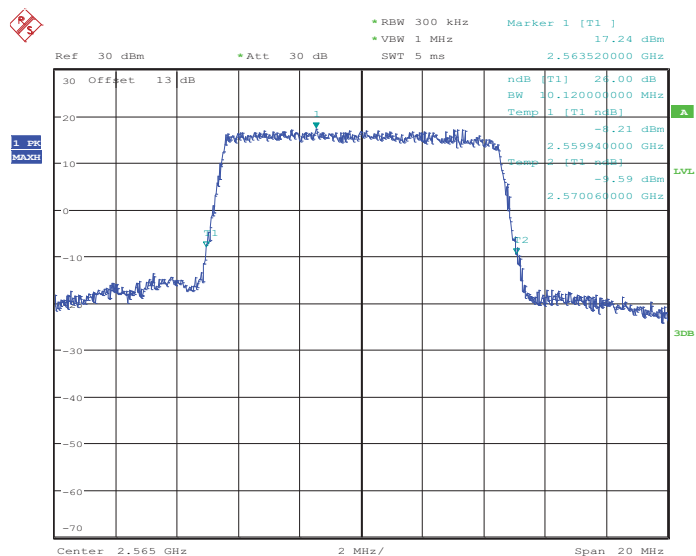
Date: 17.DEC.2013 19:31:46

99% Occupied Bandwidth Plot on Channel 21400



Date: 17.DEC.2013 19:32:01

26dB Bandwidth Plot on Channel 21400

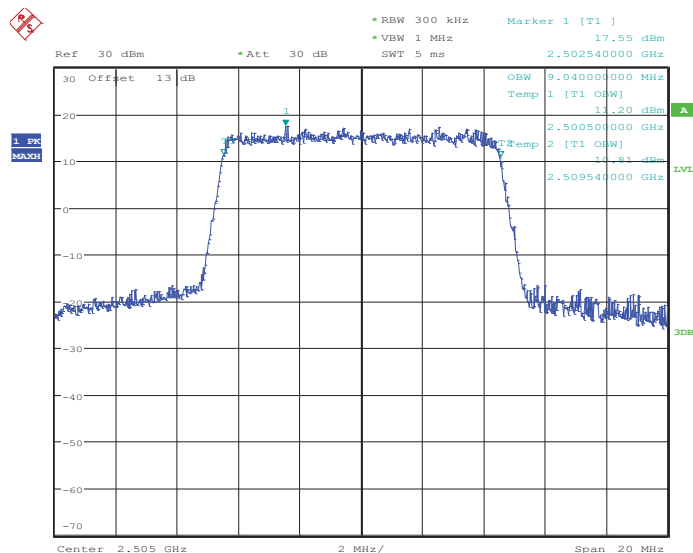


Date: 17.DEC.2013 19:32:13



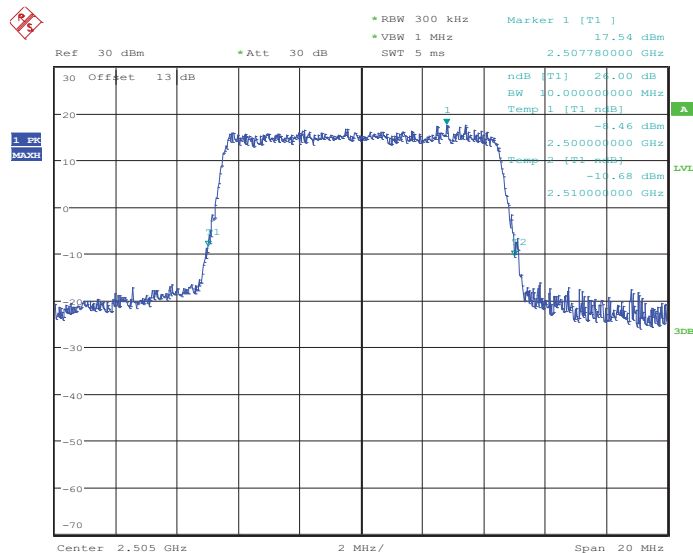
Band :	LTE Band 7	BW / Mod. :	10MHz / 16QAM
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99% Occupied Bandwidth Plot on Channel 20800



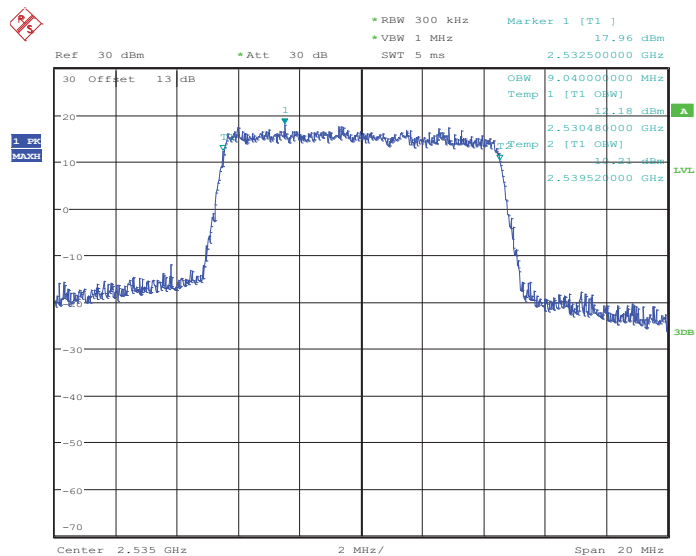
Date: 17.DEC.2013 19:19:36

26dB Bandwidth Plot on Channel 20800



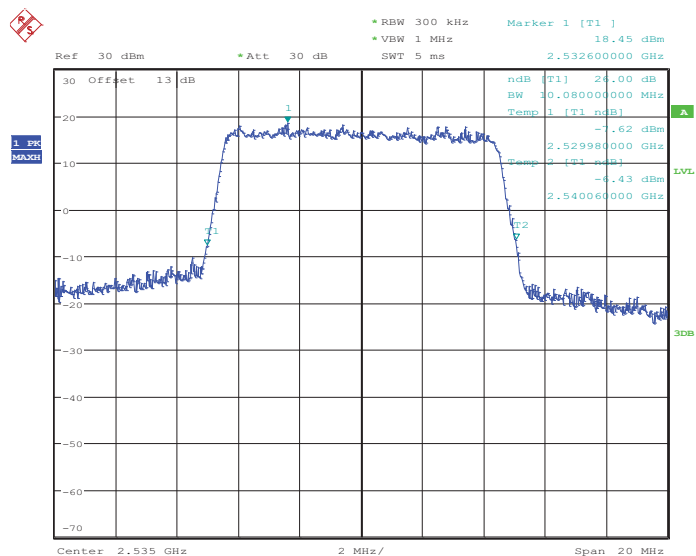
Date: 17.DEC.2013 19:19:21

99% Occupied Bandwidth Plot on Channel 21100



Date: 17.DEC.2013 19:31:01

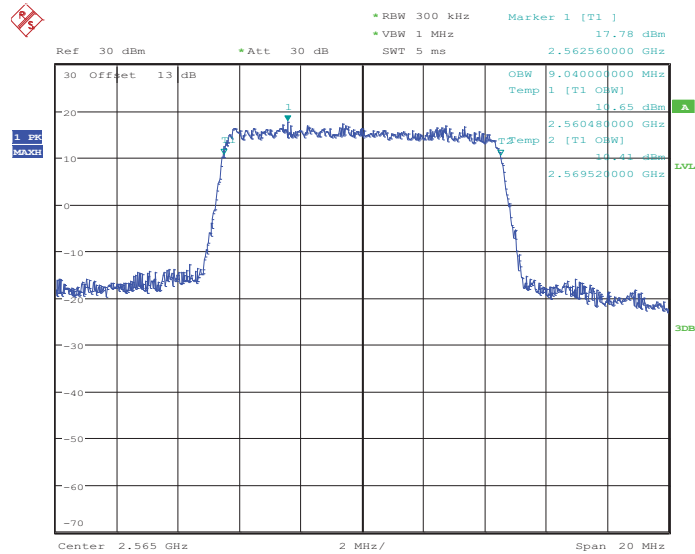
26dB Bandwidth Plot on Channel 21100



Date: 17.DEC.2013 19:30:48

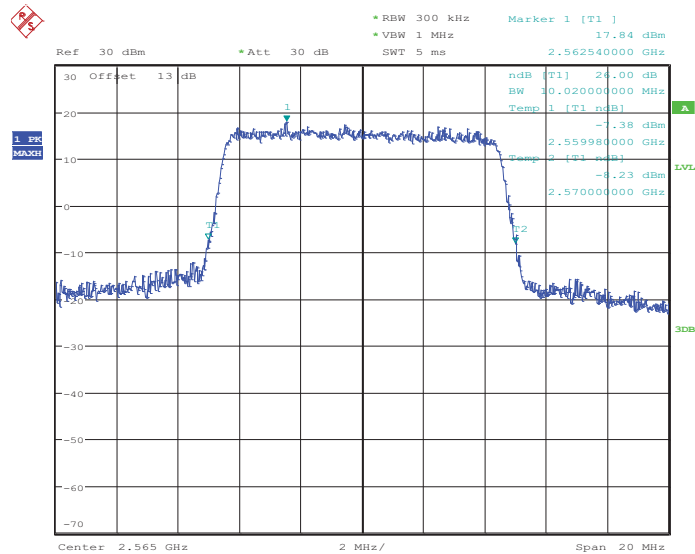


99% Occupied Bandwidth Plot on Channel 21400



Date: 17.DEC.2013 19:33:49

26dB Bandwidth Plot on Channel 21400

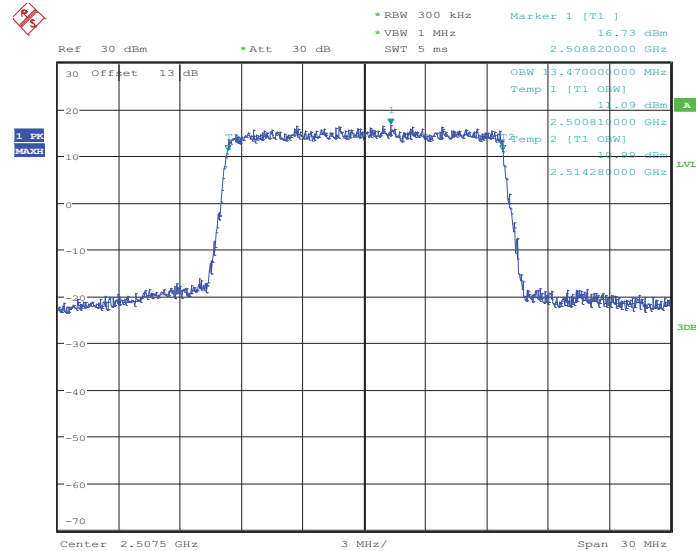


Date: 17.DEC.2013 19:33:31



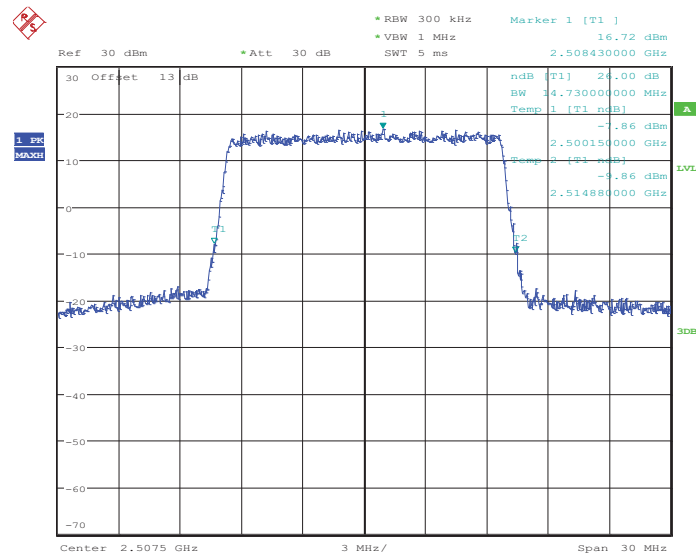
Band :	LTE Band 7	BW / Mod. :	15MHz / QPSK
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99% Occupied Bandwidth Plot on Channel 20825



Date: 17.DEC.2013 19:41:08

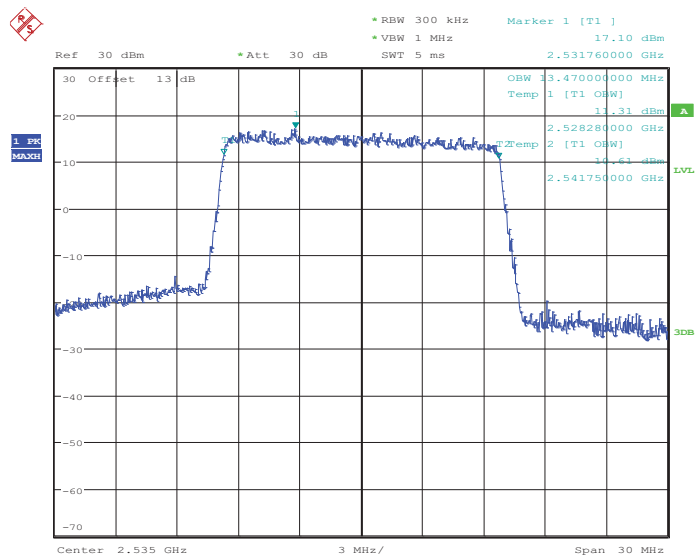
26dB Bandwidth Plot on Channel 20825



Date: 17.DEC.2013 19:41:26

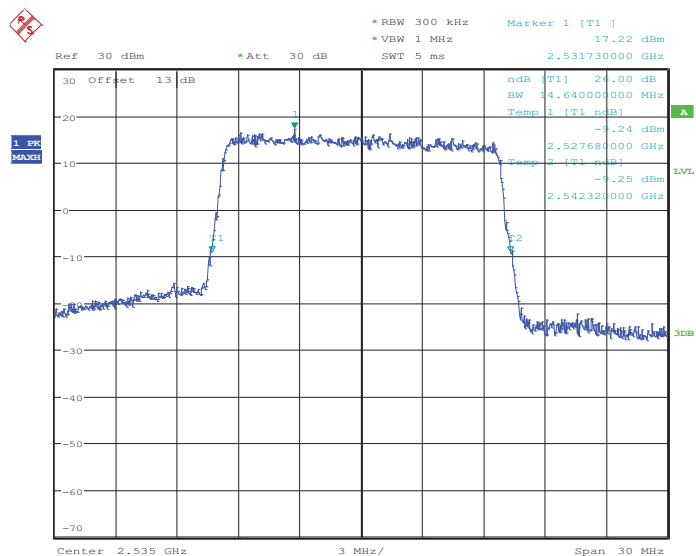


99% Occupied Bandwidth Plot on Channel 21100



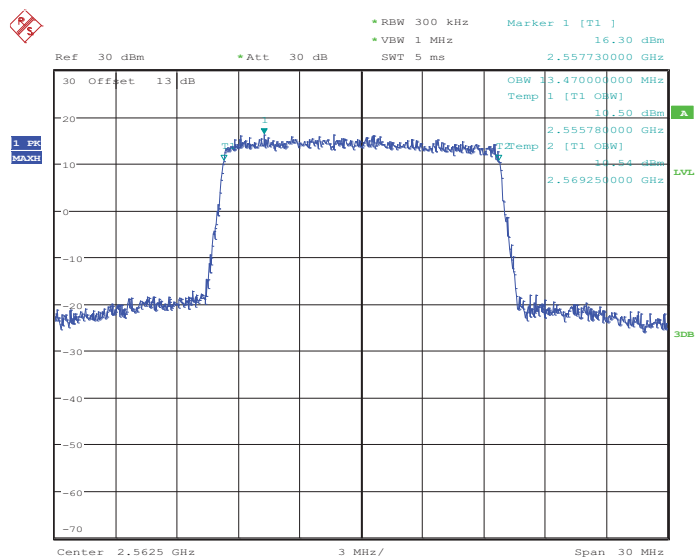
Date: 17.DEC.2013 19:42:22

26dB Bandwidth Plot on Channel 21100



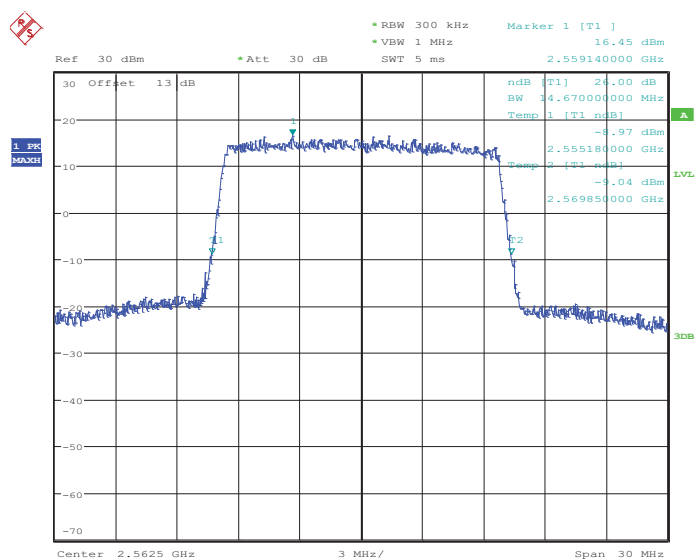
Date: 17.DEC.2013 19:42:36

99% Occupied Bandwidth Plot on Channel 21375



Date: 17.DEC.2013 19:46:16

26dB Bandwidth Plot on Channel 21375

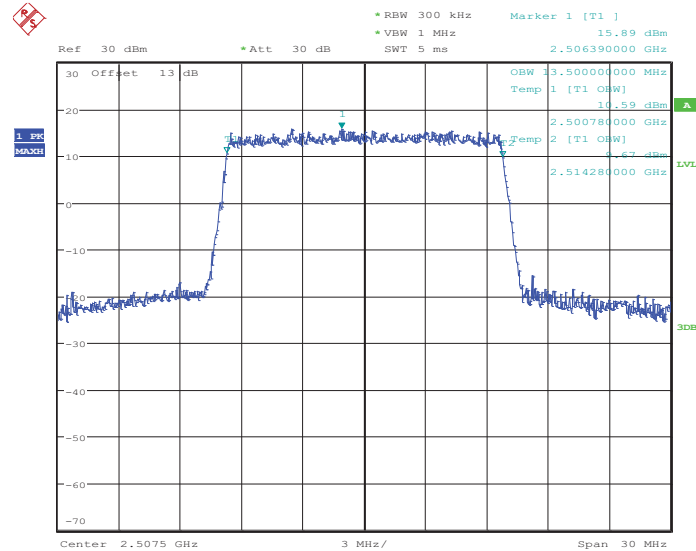


Date: 17.DEC.2013 19:46:31



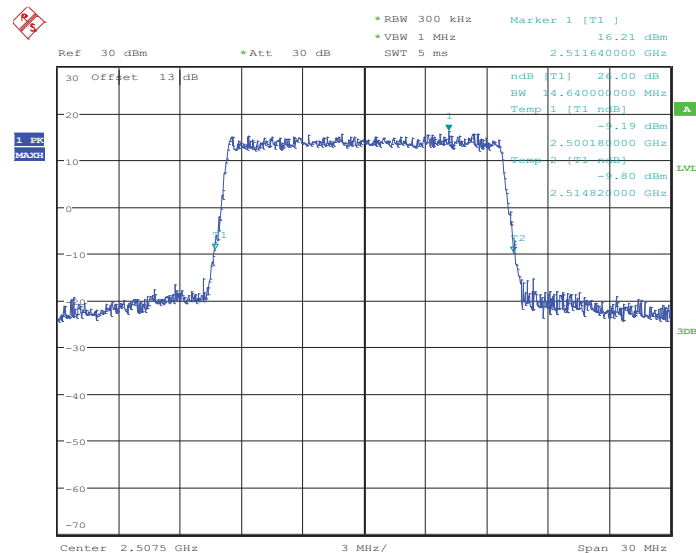
Band :	LTE Band 7	BW / Mod. :	15MHz / 16QAM
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99% Occupied Bandwidth Plot on Channel 20825



Date: 17.DEC.2013 19:40:51

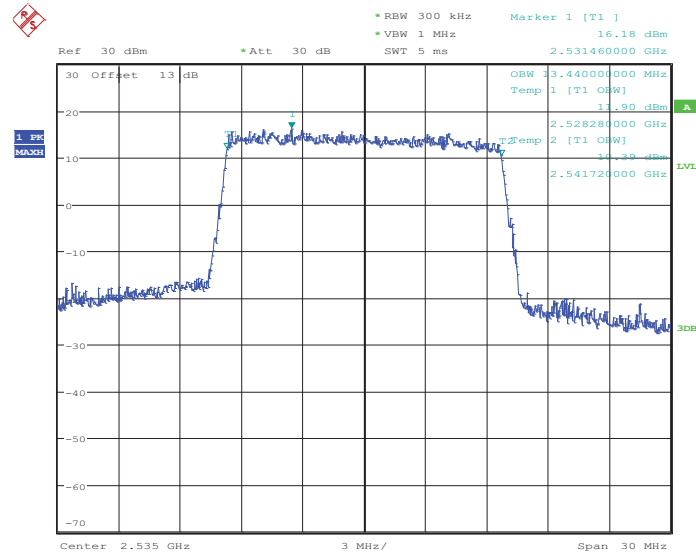
26dB Bandwidth Plot on Channel 20825



Date: 17.DEC.2013 19:40:35

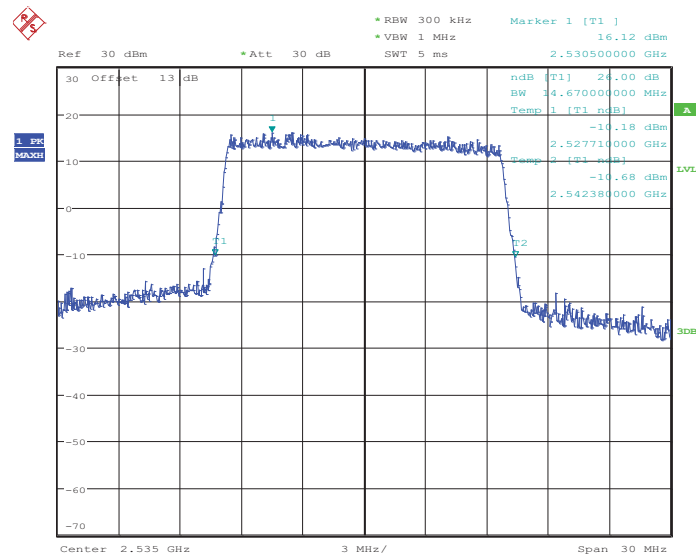


99% Occupied Bandwidth Plot on Channel 21100



Date: 17.DEC.2013 19:43:11

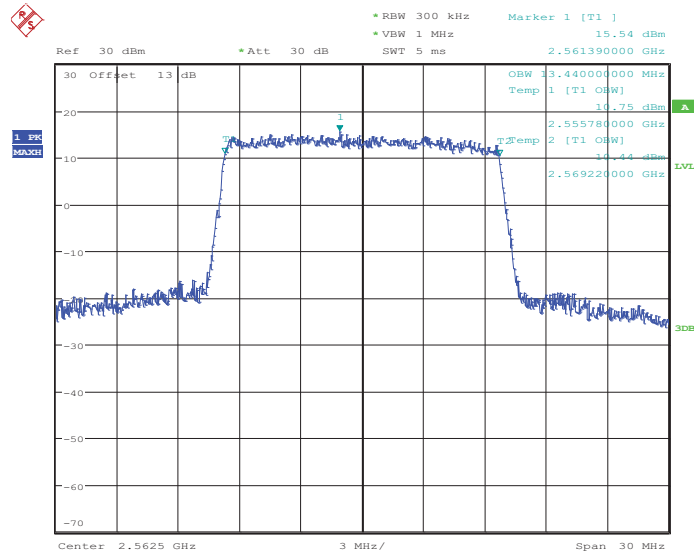
26dB Bandwidth Plot on Channel 21100



Date: 17.DEC.2013 19:42:54

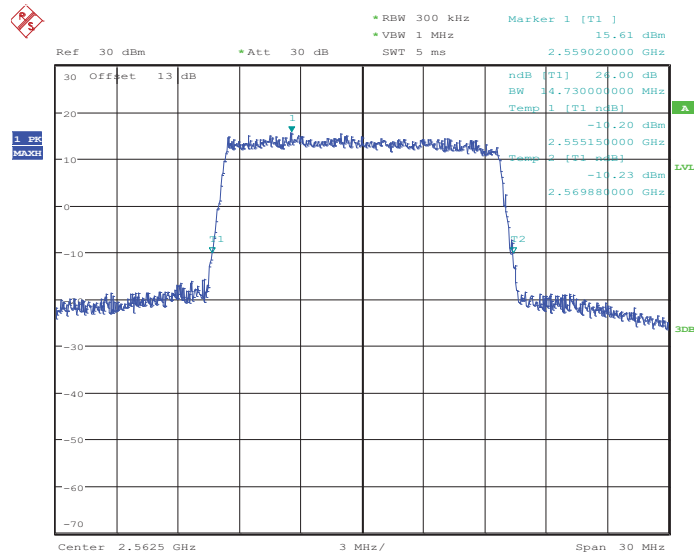


99% Occupied Bandwidth Plot on Channel 21375



Date: 17.DEC.2013 19:43:29

26dB Bandwidth Plot on Channel 21375

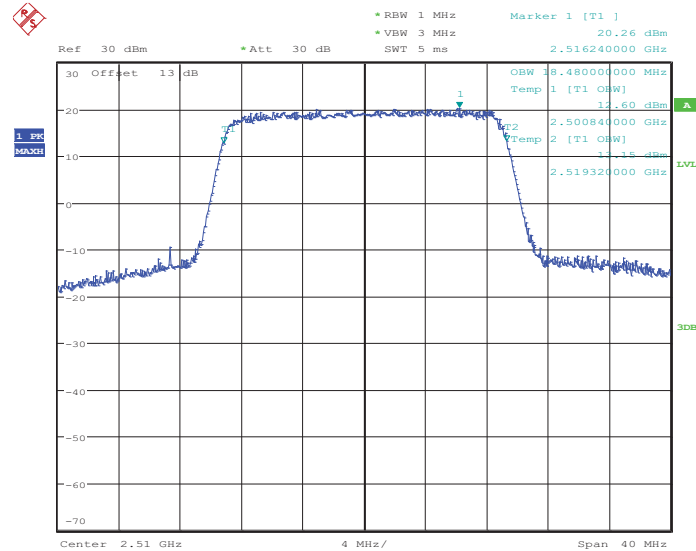


Date: 17.DEC.2013 19:43:43



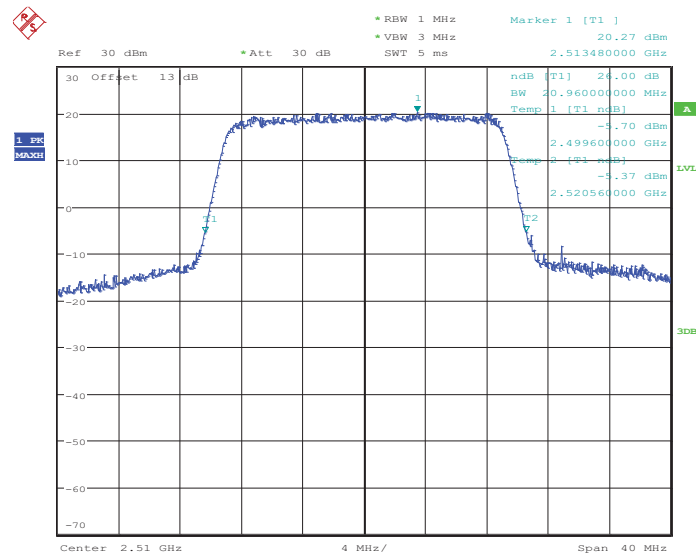
Band :	LTE Band 7	BW / Mod. :	20MHz / QPSK
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99% Occupied Bandwidth Plot on Channel 20850



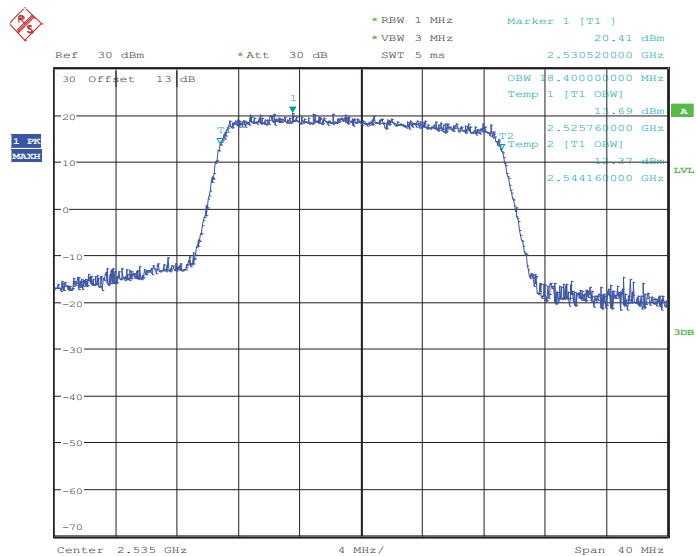
Date: 17.DEC.2013 19:50:09

26dB Bandwidth Plot on Channel 20850



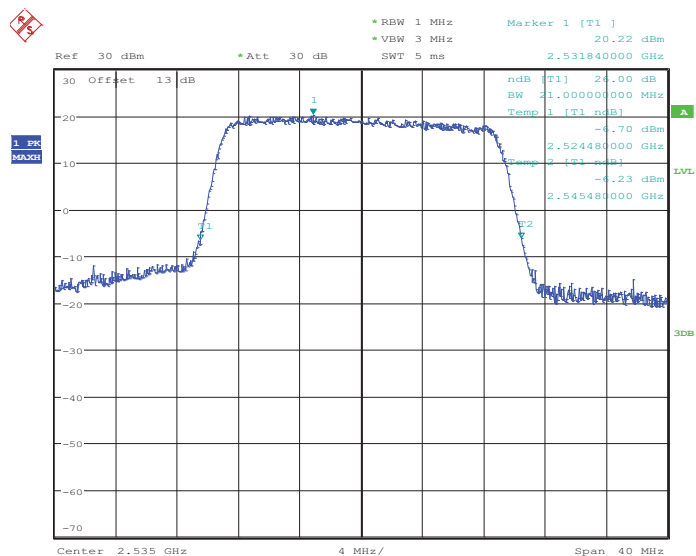
Date: 17.DEC.2013 19:49:45

99% Occupied Bandwidth Plot on Channel 21100



Date: 17.DEC.2013 19:54:14

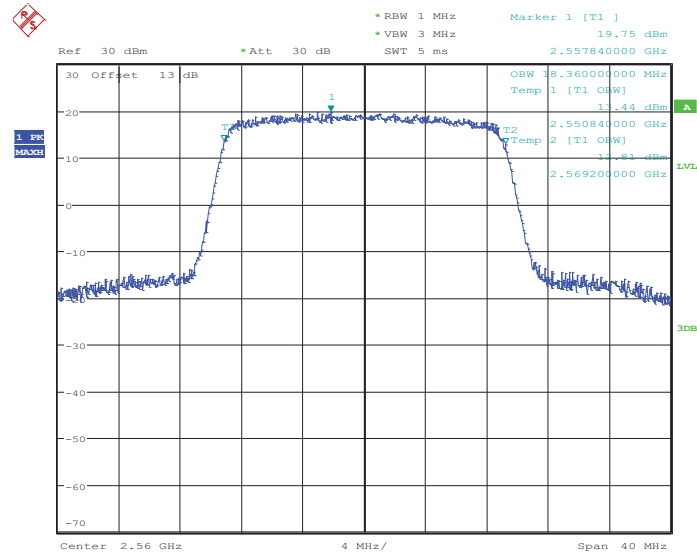
26dB Bandwidth Plot on Channel 21100



Date: 17.DEC.2013 19:54:01

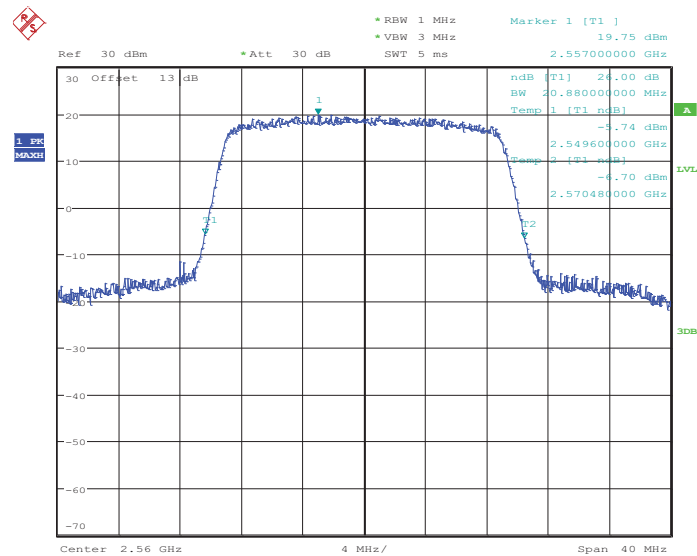


99% Occupied Bandwidth Plot on Channel 21350



Date: 17.DEC.2013 19:55:46

26dB Bandwidth Plot on Channel 21350

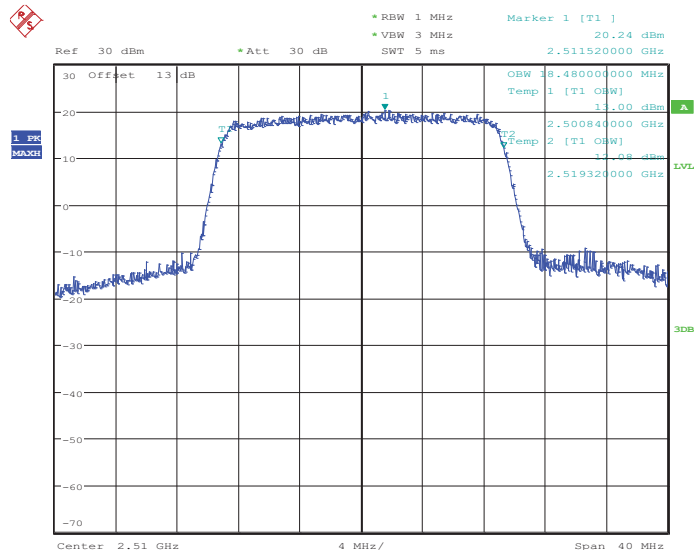


Date: 17.DEC.2013 19:55:32



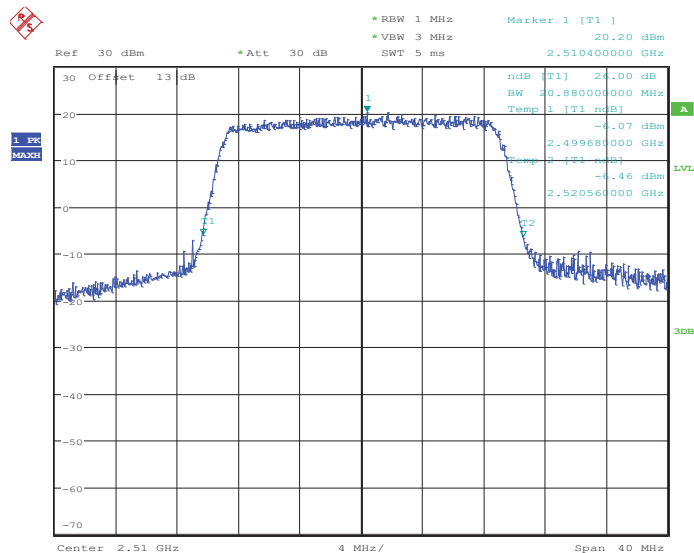
Band :	LTE Band 7	BW / Mod. :	20MHz / 16QAM
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99% Occupied Bandwidth Plot on Channel 20850



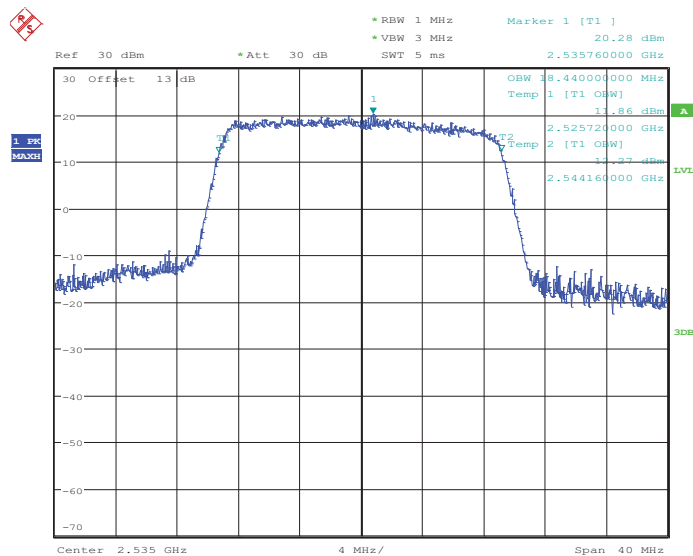
Date: 17.DEC.2013 19:48:03

26dB Bandwidth Plot on Channel 20850



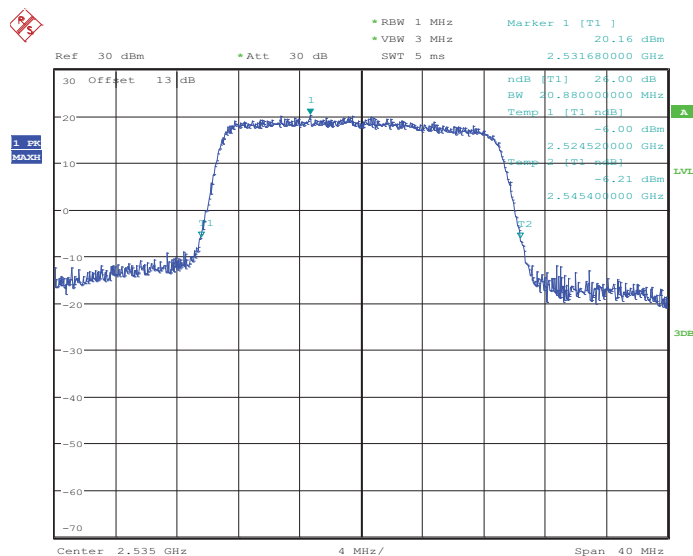
Date: 17.DEC.2013 19:48:15

99% Occupied Bandwidth Plot on Channel 21100



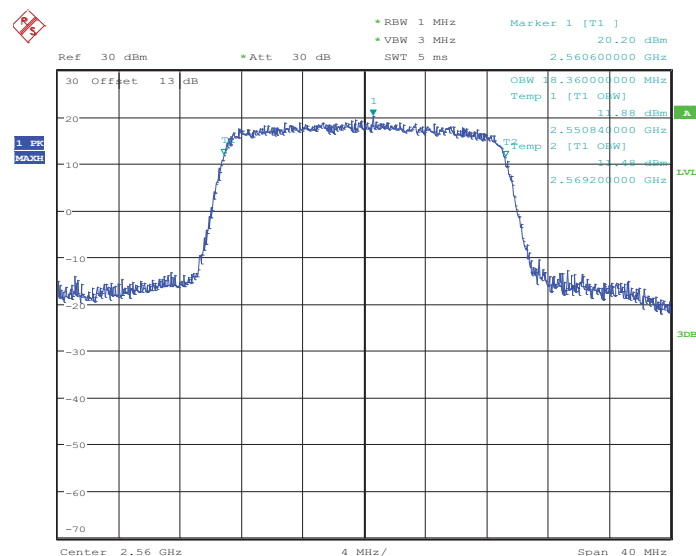
Date: 17.DEC.2013 19:54:28

26dB Bandwidth Plot on Channel 21100



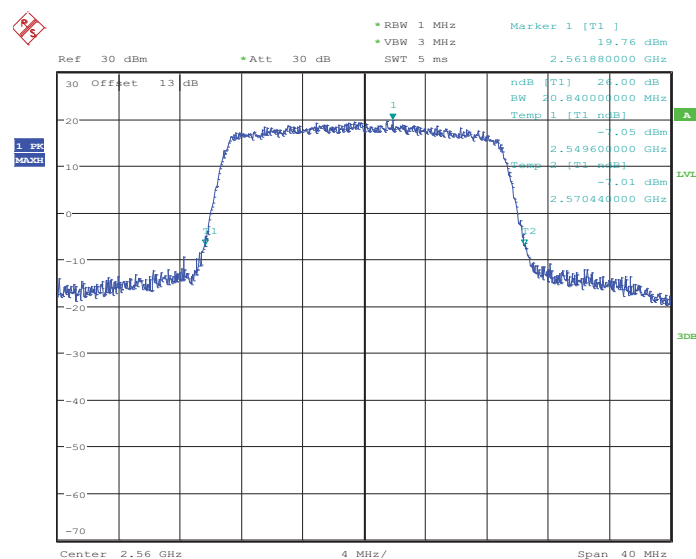
Date: 17.DEC.2013 19:54:49

99% Occupied Bandwidth Plot on Channel 21350



Date: 17.DEC.2013 19:55:03

26dB Bandwidth Plot on Channel 21350



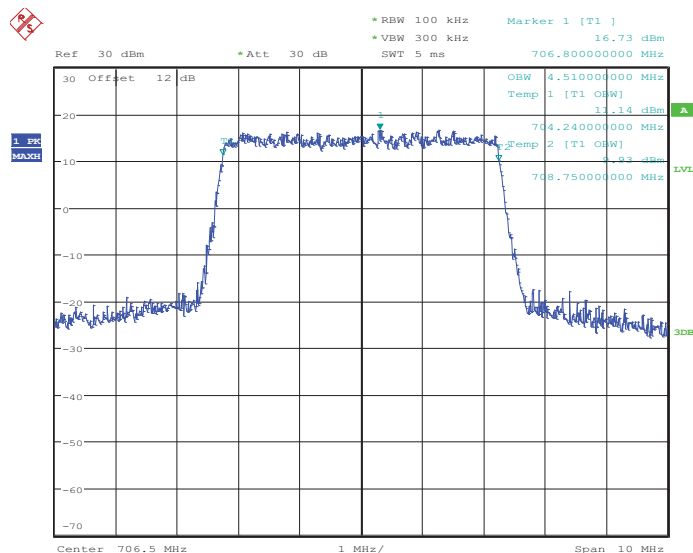
Date: 17.DEC.2013 19:55:15

Note: The total loss is 13 dB of the RF cable and attenuator of LTE Band 7, and has been compensated to the spectrum analyzer offset.



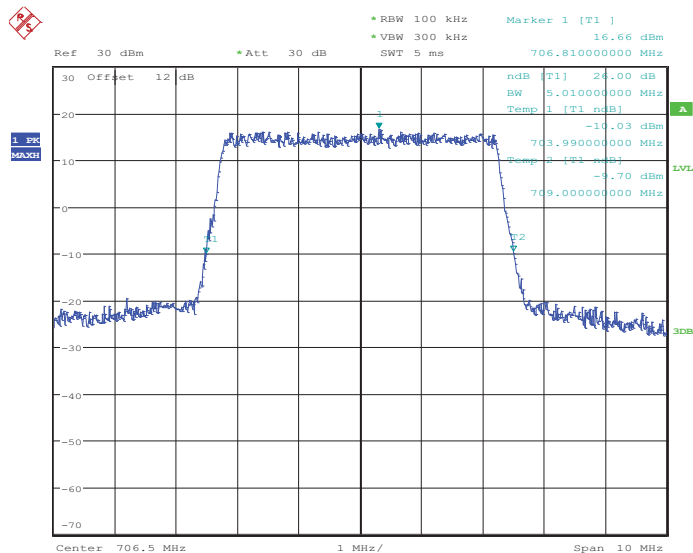
Band :	LTE Band 17	BW / Mod. :	5MHz / QPSK
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99% Occupied Bandwidth Plot on Channel 23755



Date: 21.DEC.2013 15:33:00

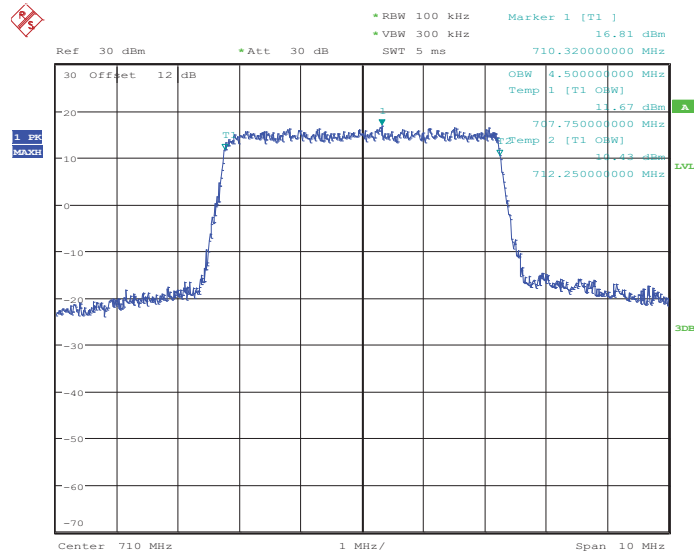
26dB Bandwidth Plot on Channel 23755



Date: 21.DEC.2013 15:33:33

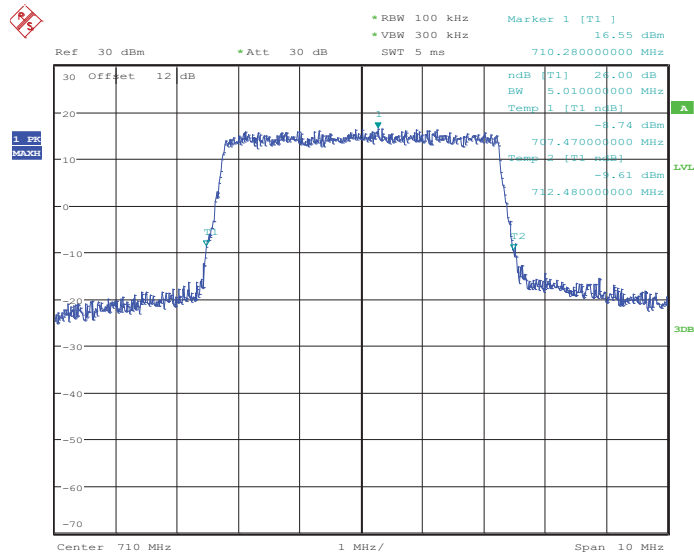


99% Occupied Bandwidth Plot on Channel 23790



Date: 21.DEC.2013 15:37:55

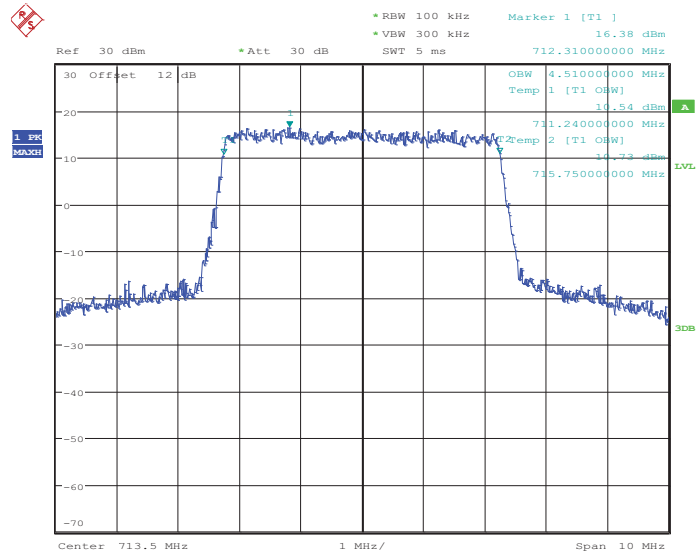
26dB Bandwidth Plot on Channel 23790



Date: 21.DEC.2013 15:38:21

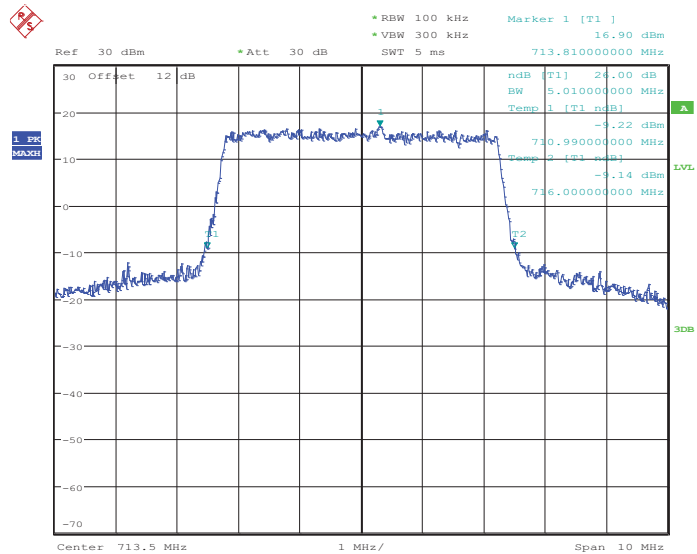


99% Occupied Bandwidth Plot on Channel 23825



Date: 21.DEC.2013 15:41:45

26dB Bandwidth Plot on Channel 23825

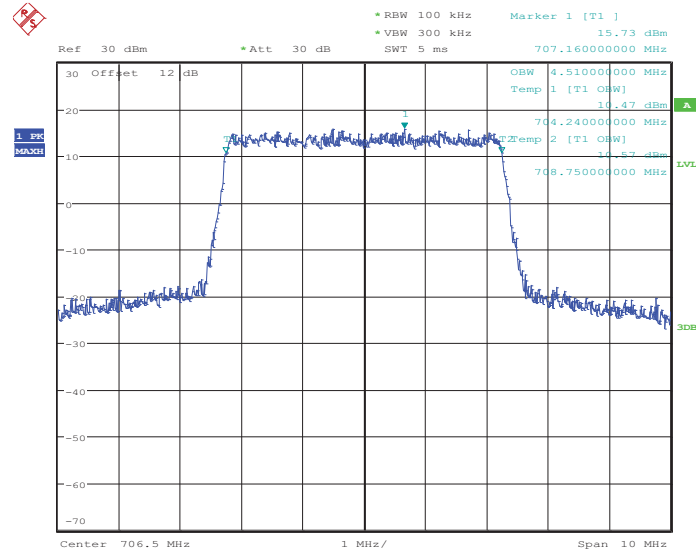


Date: 21.DEC.2013 15:42:24



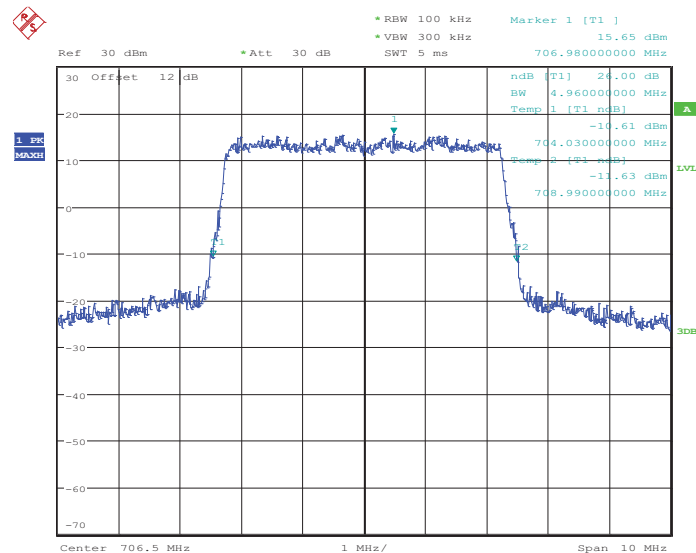
Band :	LTE Band 17	BW / Mod. :	5MHz / 16QAM
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99% Occupied Bandwidth Plot on Channel 23755



Date: 21.DEC.2013 15:33:17

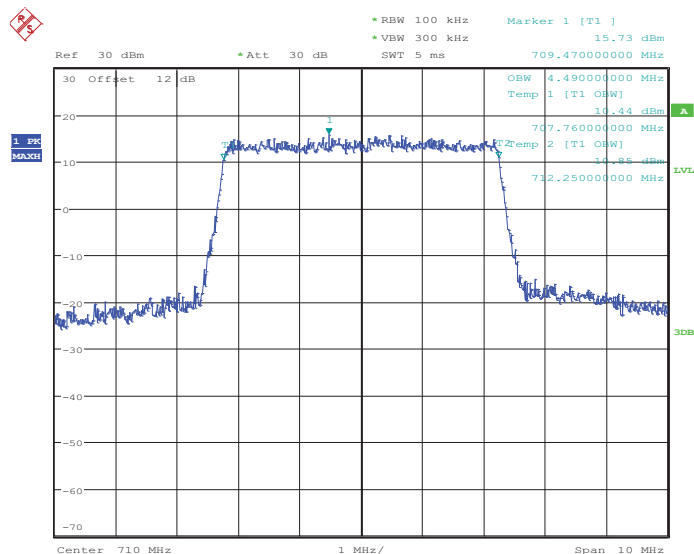
26dB Bandwidth Plot on Channel 23755



Date: 21.DEC.2013 15:33:46

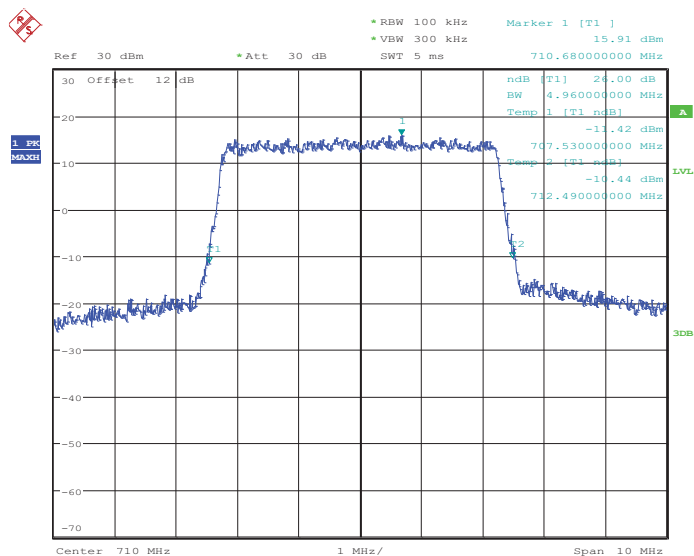


99% Occupied Bandwidth Plot on Channel 23790



Date: 21.DEC.2013 15:38:09

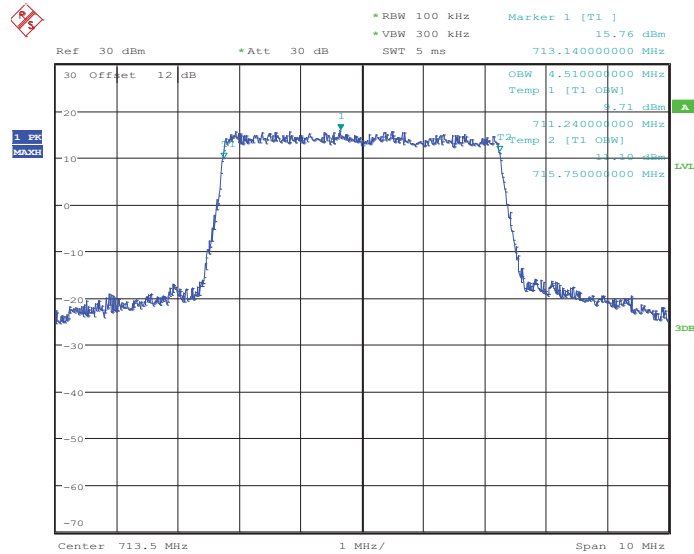
26dB Bandwidth Plot on Channel 23790



Date: 21.DEC.2013 15:38:37

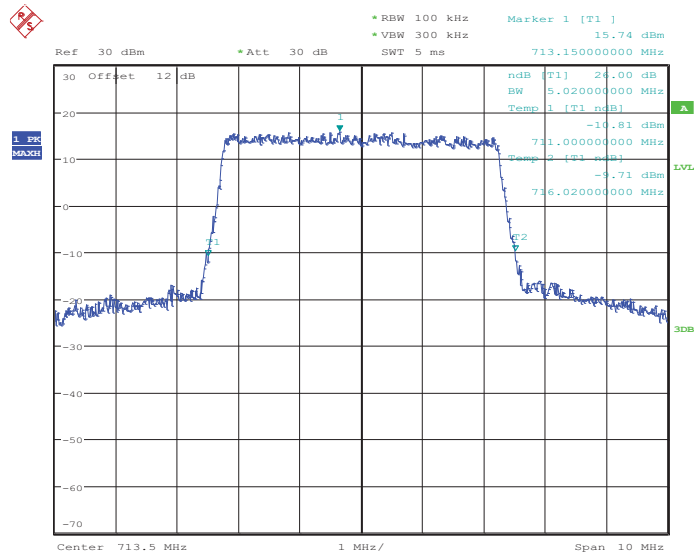


99% Occupied Bandwidth Plot on Channel 23825



Date: 21.DEC.2013 15:42:06

26dB Bandwidth Plot on Channel 23825

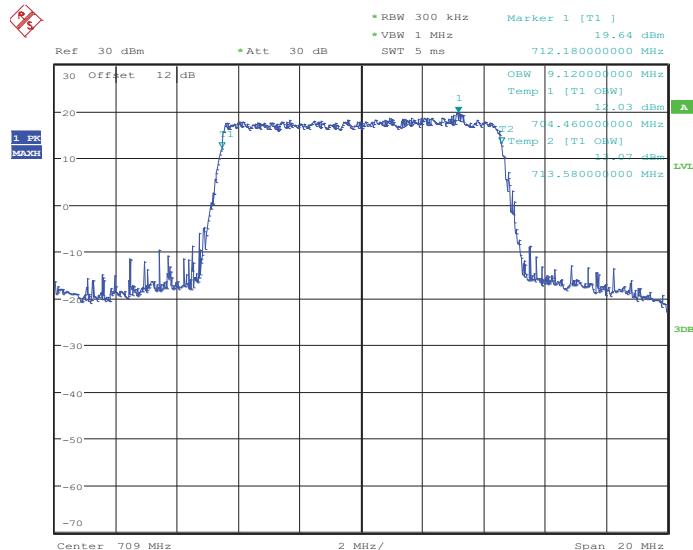


Date: 21.DEC.2013 15:42:47



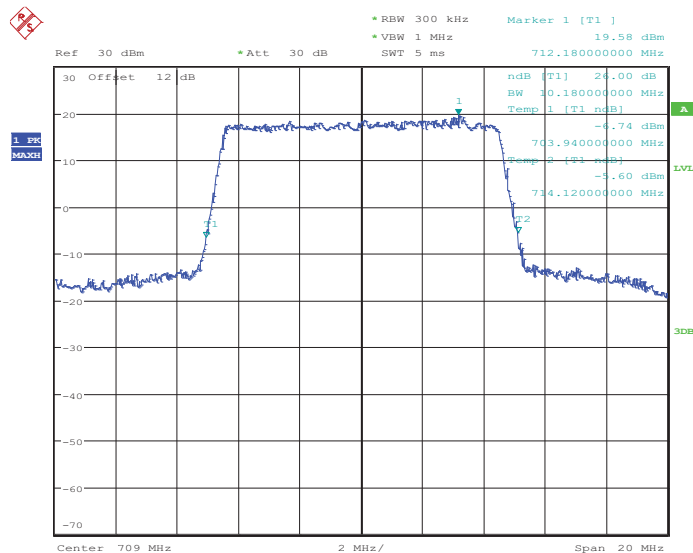
Band :	LTE Band 17	BW / Mod. :	10MHz / QPSK
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99% Occupied Bandwidth Plot on Channel 23780



Date: 21.DEC.2013 15:47:14

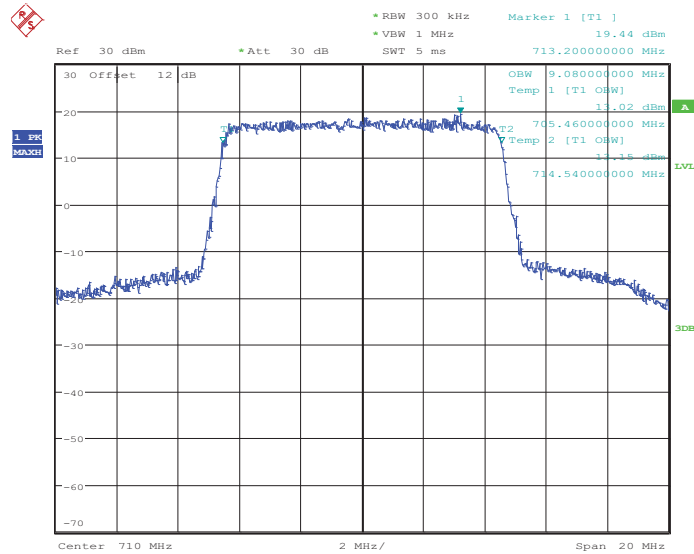
26dB Bandwidth Plot on Channel 23780



Date: 21.DEC.2013 15:47:53

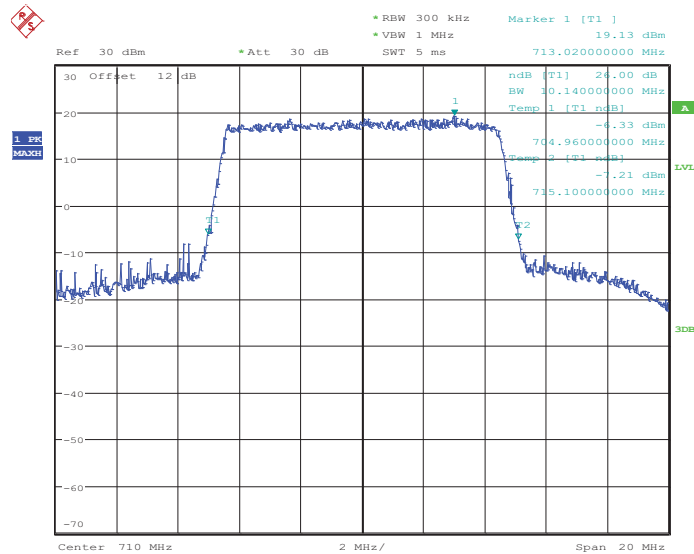


99% Occupied Bandwidth Plot on Channel 23790



Date: 21.DEC.2013 15:51:43

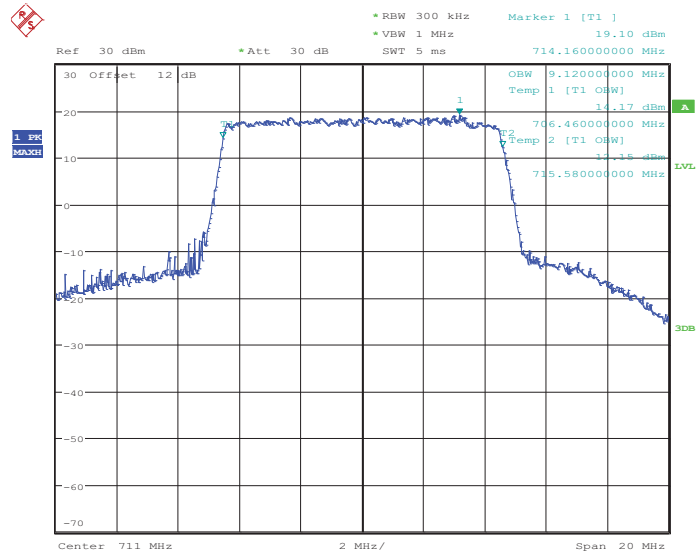
26dB Bandwidth Plot on Channel 23790



Date: 21.DEC.2013 15:52:22

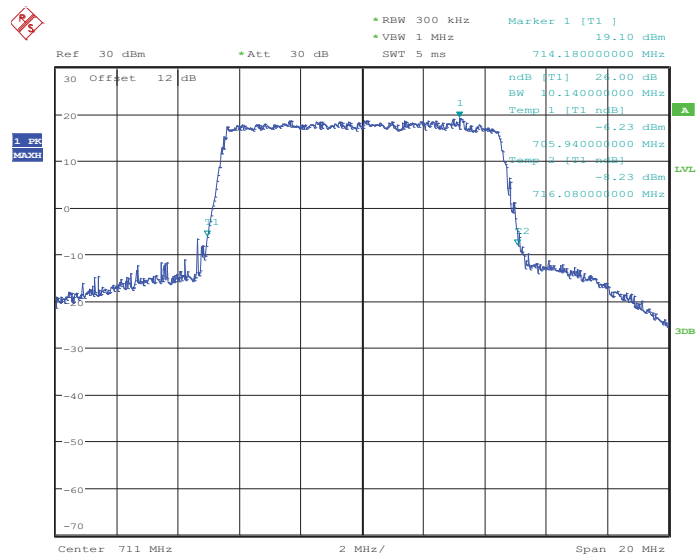


99% Occupied Bandwidth Plot on Channel 23800



Date: 21.DEC.2013 16:00:01

26dB Bandwidth Plot on Channel 23800

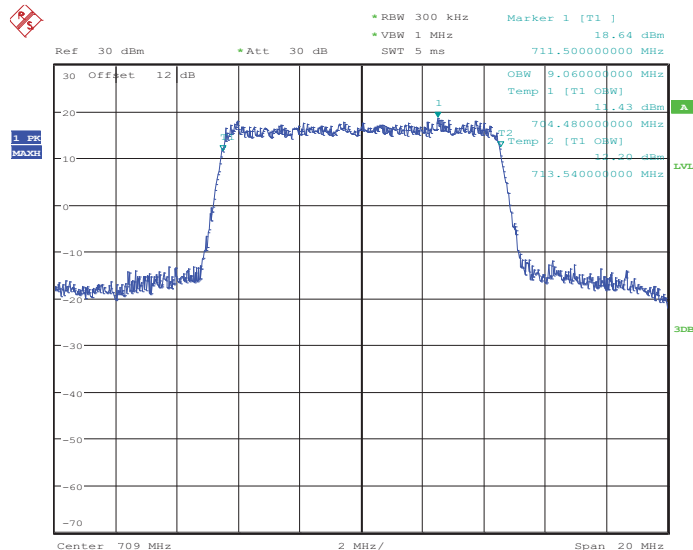


Date: 21.DEC.2013 16:00:59



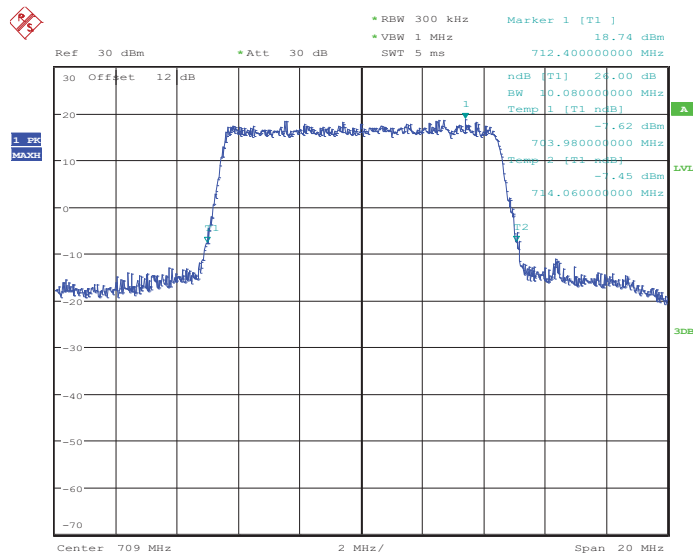
Band :	LTE Band 17	BW / Mod. :	10MHz / 16QAM
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99% Occupied Bandwidth Plot on Channel 23780



Date: 21.DEC.2013 15:47:26

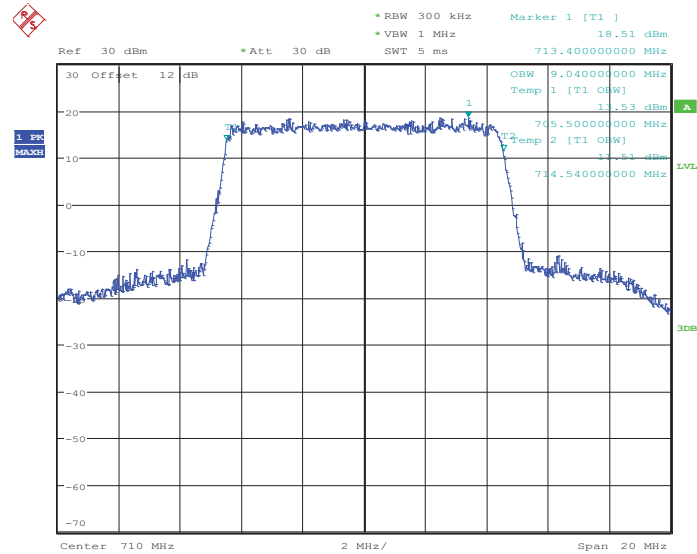
26dB Bandwidth Plot on Channel 23780



Date: 21.DEC.2013 15:48:08

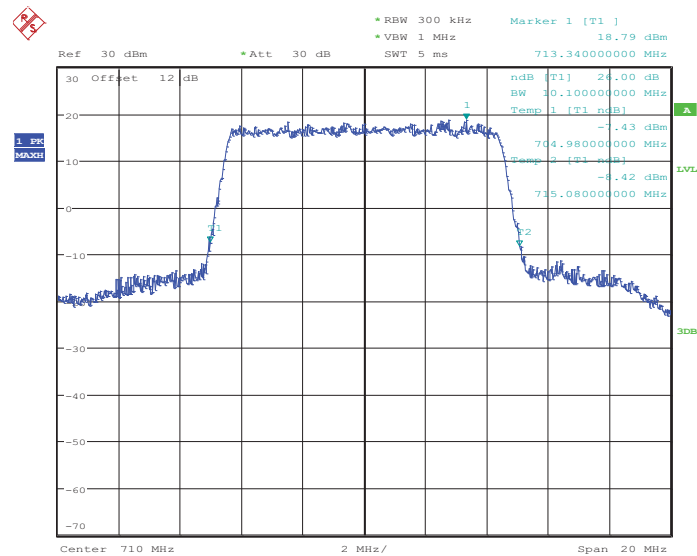


99% Occupied Bandwidth Plot on Channel 23790



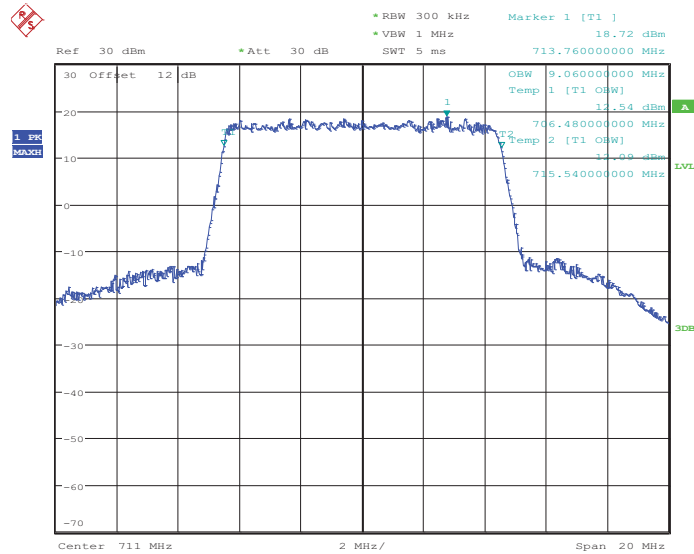
Date: 21.DEC.2013 15:52:03

26dB Bandwidth Plot on Channel 23790



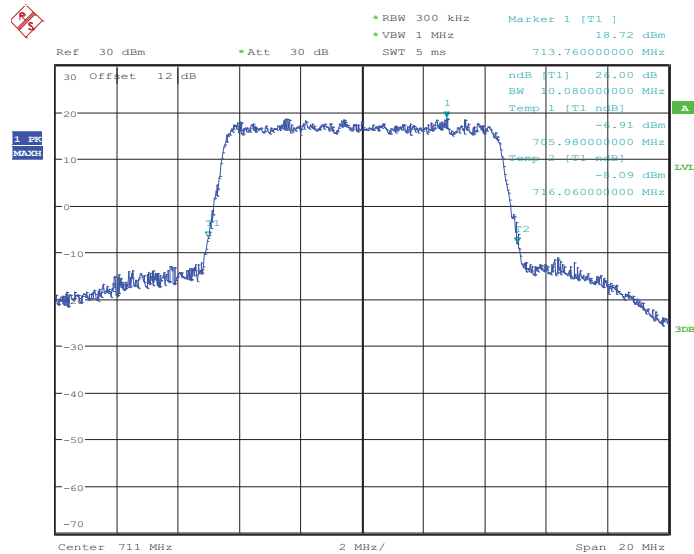
Date: 21.DEC.2013 15:52:40

99% Occupied Bandwidth Plot on Channel 23800



Date: 21.DEC.2013 16:00:32

26dB Bandwidth Plot on Channel 23800



Date: 21.DEC.2013 16:01:20

Note: The total loss is 12 dB of the RF cable and attenuator of LTE Band 17, and has been compensated to the spectrum analyzer offset.